Chapter-7

Essential Commodities Regulation & Industries Promotion

7.1 Purpose of the IDR Act 207
7.2 Exemption from Industrial Licensing 208
7.3 Industrial deregulation. 212
7.4 Industrial Policy Prior to 1991 217
   7.4.1 Industrial Policy Prior to 1991 231
   7.4.2 Review of Pre-1991 Industrial Policy and Liberalisation Trends 236
   7.4.3 New Industrial Policy-1991 244
7.5 Evaluation of some Major Industries India 254
   7.5.1 Sugar Industry 254
   7.5.2 Textile Industry 258
   7.5.3 Jute Industry 264
   7.5.4 Cement Industry 267
   7.5.5 Steel Industry 274
   7.5.6 Oil and Gas Industry 283
   7.5.7 Aviation Industry 297
   7.5.8 Telecommunication Industry 312
7.1 Essential Commodities Regulation

It is responsibility of any Government to ensure equitable supply of essential commodities to people at reasonable prices. Need for such contract is necessary in cases of inadequate supply. Need for such control is necessary in cases of inadequate supply and lack of competition. India started facing severe shortages of many commodities particularly before and during 2nd World War. Government of India, therefore, made certain rules to India Act, in 1939. This provision continued upto 1946, when Essential Supplies (Temporary Powers) Act, 1946 was passed. This Act continued upto 26.1.1955. Since shortages continued, it was felt that a permanent measure for control of Essential Commodities is necessary. Constitution was amended in 1954 by adding entry No.33 to list 3 of the 7th Schedule to the Constitution. After this, Essential Commodities Act, 1955 (ECA) was passed, which came into force on 1.4.1955. The Act has been amended from time to time. Under Essential commodities Act, Government has power to control production, supply and distribution of and trade and commerce in certain commodities. Essential Commodities (Special provisions) Act, 1981 was passed which contains provisions of special court to try the offences. These Special provisions have been extended by an ordinance but have now lapsed.

Controls beyond limit are counter – productive:

Government has realized that controls over prices and distribution do not help in the long run. Most glaring example is that of cement. Severe distribution and price control was established on cement. The result was that in view of an-remunerative prices, new units were not being set-up and existing cement manufacturing units were not taking steps to expand, renovate or replace old machinery. The result was that shortage of cement persisted and increased. Government introduced partial decontrol over cement in February 1982 cement was fully decontrolled on March 1989. After removal of controls, production of cement picked up and now availability of
cement is adequate and in fact, customer can choose brand and quality they require.

Severe price control on bulk drugs is leading to a situation where drug manufacturers are not investing in basic research as they are unable to generate enough surplus. This in long range will affect supply and quality.  

7.2 Essential Commodities Act, 1955

The Essential Commodities Act, 1955 was enacted to ensure the easy availability of essential commodities to consumers and to protect them from exploitation by unscrupulous traders. The Act provides for the regulation and control of production, distribution and pricing of commodities which are declared as essential for maintaining or increasing supplies or for securing their equitable distribution and availability at fair prices. Exercising powers under the Act, various Ministries/Departments of the Central Government and under the delegated powers, the State Governments/UT Administrations have issued orders for regulating production, distribution, pricing and other aspects of trading in respect of the commodities declared as essential. The enforcement/ implementation of the provisions of the Essential Commodities Act, 1955 lies with the State Governments and UT Administrations.

As per the decisions of the Conference of Chief Ministers held on 21 May 2001, a Group of Ministers and Chief Ministers had been constituted which recommended that the regulatory mechanism under the Essential Commodities Act, 1955 should be phased out. Accordingly, the restrictions like licensing requirement, stock limits and movement restrictions have been removed from almost all agricultural commodities. Wheat, pulses and edible oils, edible oilseeds and rice being exceptions, where States have been permitted to impose some temporary restrictions in order to contain price increase of these commodities.

The list of essential commodities has been reviewed from time to time with reference to the production and supply of these commodities and in the light of economic liberalisation in consultation with the concerned Ministries/Departments administering these commodities. The Central Government is consistently following the policy of removing all unnecessary restrictions on movement of goods across the State boundaries as part of the process of globalisation simultaneously with the pruning of the list of essential commodities under the said Act to promote consumer interest and free trade. The number of essential commodities which stood at 70 in the year 1989 has been brought down to 7 at present through such periodic reviews.

In conformity with the policy of the Government towards economic liberalisation, Department of Consumer Affairs is committed to the development of agriculture and trade by removing unnecessary controls and restrictions to achieve a single Indian Common Market across the country for both manufactured and agricultural produce and to encourage linkage between agriculture and industry. With this object in view, this Department introduced the Essential Commodities (Amendment) Bill, 2005 in the Parliament in the winter session of 2005 to enable the Central Government to prune the list of essential commodities to the minimum by deleting all such commodities which have no relevance in the context of present improved demand and supply position and to facilitate free trade and commerce. Only those commodities considered essential to protect the interest of the farmers and the large section of the people "below the poverty line" are proposed to be retained under the Essential Commodities Act, 1955.

The Prevention of Black-marketing and Maintenance of Supplies of Essential Commodities Act, 1980 is being implemented by the State Governments/UT Administrations for the prevention of unethical trade practices like hoarding and black-marketing. The Act empowers the Central and State Governments to detain persons whose activities are found to be prejudicial to the maintenance of supplies of commodities essential to the community. Detentions are made by the States/UTs in selective cases to prevent hoarding and black-marketing of the essential commodities. As per
reports received from the State Governments, 119 detention orders were issued under the Act during the year 2007. The Central Government and the State Governments also have the power to modify or revoke the detention orders. The representations made by or on behalf of the persons ordered for detention are considered and decided by the Central Government.

In the context of unprecedented rise in prices of some essential commodities in the mid 2006, there had been wide spread concern from various corners for taking immediate steps to mitigate the rising trend of prices of essential commodities. Representations from the Chief Ministers of Punjab and Delhi and also from the Governments of Andhra Pradesh, Rajasthan and Maharashtra were received for restoration of powers under the Essential Commodities Act, 1955 for undertaking dehoarding operations in view of the assumption that there is speculative holding back of stocks particularly of wheat and pulses in anticipation of further rise in prices. Central Government has already taken a number of steps to control the price rise in essential commodities by trying to augment supply including through imports by reducing the duty level on import of both wheat and pulses to zero.

The situation was further reviewed by the Government and it was decided with the approval of the Cabinet to keep in abeyance some provisions in the Central Order dated 15.2.2002 for a period of six months with respect to wheat and pulses (whole and split), so as to tackle the crises on availability and prices of these commodities. Accordingly, the Government order No.1373 (E) dated 29.8.2006 by virtue of which the words or expressions made in respect of purchase, movement, sale, supply, distribution or storage for sale in the "Removal of (Licensing requirements, Stock limits and Movement Restrictions) on Specified Foodstuffs Order, 2002" notified on 15.02.2002 have been kept in abeyance for commodities namely wheat and pulses for a period of six months. The transport, distribution or disposal of wheat and pulses (whole or split) to places outside the State as well as import of these commodities have been kept outside the purview of the aforesaid Order of 29.08.2006. The Order of 29.08.2006 was initially in force for a period of 6 months, which was extended thrice for a period of 6 months each by Central

To enable the State Governments/UT Administrations to continue to take effective action for undertaking de-hoarding operations under the Essential Commodities Act, 1955, the price situation was further reviewed by the Government and its has been decided with the approval of the Cabinet to further impose similar restrictions by keeping in abeyance some provisions of the Central Order dated 15.02.2002 for a period of one year with respect to edible oils, oilseeds and rice, so as to tackle the rising trend of prices as well as to ensure availability of these commodities to the common people. However, it has also been decided that there shall not be any restriction on the inter-state movement of these items and that imports of these items would also be kept out of the purview of any controls by the State Governments.

(a) What is essential commodity – see 2(a) of Essential Commodities Act, 1955 states that “Essential Commodity means any of the following classes of commodities.

i. Cattle fodder including oil cakes and other concentrates.
ii. Coal including coke and other derivatives.
iii. Component parts and accessories of automobiles (Omitted)
iv. Cotton and Woolen textiles.
v. Drugs (As defined in Drugs and Cosmetics Act.
vi. Foodstuffs, including edible oil-seeds and oil.
vii. Iron and steel, including manufactured products of iron and steel.
viii. Paper, including newsprint, paperboard and straw board.
ix. raw cotton, whether ginned or unginned, and cotton seed.
x. raw jute.
xi. any other class of commodity which the control Government may be notified order, declare to be an essential commodity for the purpose of this Act, being a commodity with respect to which
Parliament has power to make laws by virtue of entry 33 in list – III in the seventh schedule of the constitution.

(b) “Food Crops” include crops of Sugarcane

(c) “Sugar” Means:

i. any form of sugar containing more than ninety per cent of sucrose, including sugar candy.

ii. Khandharia Sugar or bura Sugar or crushed sugar or any sugar in crystalline or powdered from; or

iii. Sugar in process in vaccum pan sugar factory or raw sugar produced thereon.

7.3 Govt removes 12 items from Essential Commodities list; decontrols sugar

The government on Tuesday gave permission to the removal of 12 items from the purview of Essential Commodities Act 1955 in order to lift controls pertaining to their processing, movement, storage and marketing.

Of the 29 items at present governed by the ECA, 12 will be removed from its purview and a notification to this effect will be issued shortly, an official spokesperson said in New Delhi after the meeting of the Union Cabinet.

The 12 items include textile machinery, textiles made from silk, textiles made wholly or in part from man-made cellulosic and non-cellulosic filament yarn.

Other items to be removed are man-made cellulosic and non cellulosic staple fibers and yarn made from four materials namely wool, man made cellulosic spun and non-spun fiber and silk.

However, food stuffs, cotton and woolen textiles, raw cotton, either ginned or unginned and cotton seed, raw jute, jute textiles and yarn wholly made from cotton will continue to be in the list of the essential commodities.
The government by a notified order can declare any commodity as 'essential' for the purpose of ECA 1955. Section 3 of the Act empowers the government to control production, supply, distribution, trade and commerce of such commodities.

This gives controlling powers to the state for trading and marketing these commodities in the country.

Under the Act government controls production and price, regulates storage, transport, distribution, disposal and consumption of the commodities.

**Government approves full decontrol of sugar**

The government also cleared giving full effect to decontrol of sugar during the coming financial year beginning April 1, 2002.

Stating this after a meeting of the Union Cabinet, an official spokesperson said the sugar decontrol would be effected after futures trading in the commodity becomes operational.

Sugar at present is a controlled commodity on account of which 15 per cent of the release in the market is channeled through the Public Distribution System.

In the event of the full decontrol, to be effected in the next fiscal, millers will be able to unload the entire quantity in the open market.

There is a three monthly release mechanism under which each factory is allotted a quantum it can unload in the market and the aggregate nationwide quota is also fixed. This will, however, stay even after full decontrol.

In the previous Union Budget, Finance Minister Yashwant Sinha had described the full sugar decontrol process as irreversible and linked it with the futures trading in the commodity.

The two are intertwined as full decontrol ensures greater volumes for futures trading and better chances of price discovery.
The government has given in-principle clearance to three companies for sugar futures, E-Commodities Ltd and E-Sugar India of Bombay and Hyderabad-based NCS InfoTech who have 10 months to put the process in place from December 2001.

As part of the phased decontrol, government has also switched over to three monthly release mechanism, however, mills can only sell one half of their quota in the first 45 days of a quarter to avoid any crash in prices.

**Curbs on movement of grains to go**

The Cabinet also decided to remove the requirement of licensing of dealers as also restrictions on storage and movement of wheat, paddy and rice, coarse grains, sugar, edible oilseeds and edible oil.

A central order would be issued under Section 3 of the Essential Commodities Act (ECA), 1955 removing the requirement of licensing and restrictions on storage and movement of these commodities, an official spokesperson told reporters.

In view of the relatively more comfortable food situation, it was felt that restrictions like licensing of dealers, limits on stock and control on movement are no longer needed, she said.

The government felt restrictions only hampered the growth of the agricultural sector and promotion of food processing industries in rapidly changing economic scenario and liberalisation.

Facilitating free trade and movement of foodgrains would enable farmers to get best prices for their produce, achieve price stability and ensure availability of foodgrains in deficit areas, the spokesperson said.

Removal of hurdles would also be in the interest of the consumers all over the country, specially for those in the lower income group, she said.

The Essential Commodities Act, 1955 provides for the control of the production, supply and distribution of essential commodities.
Powers to issue control orders under the Act have been delegated by the Centre to the state governments.

**Onion out of essential commodities list**

In a thanksgiving of sorts to the rural electorate of Maharashtra that paved the way for its recent assembly elections victory, the Centre on Wednesday approved deletion of onion from the purview of the Essential Commodities Act, 1955 (ECA).

The decision, taken at a meeting of the Union Cabinet here, would mean that onion would no longer be considered an `essential commodity' and neither the Centre nor the State Governments will be able to issue orders under the Act to regulate production, supply, pricing and distribution of onion.

Today's decision would also remove restrictions on movement and exports of the commodity. Export of onion is presently canalised through the National Agricultural Marketing Federation of India (Nafed) and other State/cooperative agencies, whereas from now onwards, private players would also be allowed to export on their own account.

Onion was placed under the ECA list in early-1999, following a decline in domestic production and skyrocketing of prices that led to the defeat of the then-ruling Bharatiya Janata Party (BJP) in three States. Production fell from 4.18 million tonnes (mt) in 1996-97 to 3.62 mt in 1997-98, after which it recovered to 5.33 mt in 1998-99. Since then, output has been hovering in the 4.5 mt - 4.9-mt range, except in 2002-03, when it declined again to 4.21 mt.
But the 2003-04 crop has been a bumper one of well over 5 mt, leading to a glut and piling up of huge stocks, particularly in Maharashtra, which accounts a third of the country’s total onion production. "The production and availability of onion during the last five years has, by and large, been satisfactory. The price trend of onion has also not shown any abnormality during this period. The removal of unnecessary restrictions and relaxation of controls on onion will give fair returns to growers, promote consumer interest and free trade," an official release said.

The release added that onion being a perishable commodity, storage problems coupled with controls/interventions had led to distress sales by farmers at very low prices, causing them economic hardship. Moreover, no Control Order has been issued for regulating production, distribution of onion since 1999.

Following onion's deletion, the ECA's purview is now limited to 15 items, which includes foodstuffs (including edible oilseeds and oil), petroleum products, drugs, fertilisers, cotton (including yarn and textiles), raw jute (including textiles), iron & steel, coal, fertilisers and cattle fodder.
7.4 Industry Promotion

Industry

Industries (Development and Regulation) Act, 1951 (IDRA) was passed in early stages after independence. India and ideal of socialistic model for development and growth. “Planned Economy” was the goal. It was envisaged to introduce licensing for proper industrial growth. Many industries were nationalized up to 1984.

However, it was observed later that policy of compulsory industrial licensing was stifling industrial growth instead of promoting it. Many industries taken over by Government (now called Public Sector Undertakings) continue to be sick and are causing a great drain on our economy. It was expected that public sector undertakings (PSU) will command the heights and will lead the industrial growth. Unfortunately, banning a few undertakings, other have became models of inefficiency poor productivity and corruption. Realising this government has not taken over any unit almost for 25 years. New Industrial Policy (NIP) announced in July 1991 has made radical departure from earlier policies. Most of the industries (barring a few) are delliansed. The IDRA Act has lost most of its relevance in the present situation.

Purpose of the IDR Act

Industry refers to the people or companies engaged in a particular kind of commercial enterprise. It is described it as the manufacturing of a good or
service within a category. It is the secondary sector in economics, also coming under the private sector.

Economies tend to follow a developmental progress that takes them from a heavy reliance to agriculture and mining to manufacturing industry, and then move on to a more service based economy.

1. **Primary sector:** mainly includes raw material extraction industries such as mining and farming. It is mainly the conversion of natural resources into primary products that are used as raw material by other industries. The manufacturing industries that aggregate, package, purify or process the raw material near the primary producers are normally considered part of this sector, especially if the raw material is unsuitable for use in its original form, or if it is difficult to transport it to long distances. Developing countries are more dependent on this sector. In developed the same sector becomes more mechanized and high-tech, requiring smaller manpower. Hence, while developing countries have a major part of the workforce involved in this industry, the developed countries have a higher percentage involved in secondary and tertiary sectors as compared to the primary sector.

2. **Secondary sector:** involves refining, construction, and manufacturing. This sector creates a finished and useable product. The sector is divided into light and heavy industry. The sector consumes large amount of energy and needs factories and often heavy machinery to convert raw material into a finished product. These also produce large amount of waste product in the process, often environmentally hazardous. However, manufacturing is an important part of economic growth and development. It increases export possibilities, thus improving GDP of the country. This ion turn funds infrastructure in the economy and health facilities, among other life initiatives. This sector is more open to international trade and competition than service.

3. **Tertiary sector:** deals with services (such as law and medicine) and distribution of manufactured goods. When contrasted to the wealth producing sectors like secondary and primary sectors, tertiary sector is a wealth consuming sector. When the wealth consuming and wealth producing sectors
are balanced, the economy grows, but if the tertiary sector grows bigger than the first two, the economy declines. Service sector, as it is called, offers services or ‘intangible goods’. The services are provided to businesses and final consumers. It may involve distribution or transport and sales of goods from producer to consumer. This sector also includes the soft parts of the economy such as the insurance, tourism, banking, education, retail. Typically, the output is in the form of content (info), advice, service, attention experience or discussion. Service economy refers to a model where as much economic activity as possible is treated as service.

4. **Quaternary sector**: knowledge industry focusing on technological research, design and development such as computer programming, and biochemistry. It is a comparatively new division. It is an extension of the three-sector hypothesis of industrial evolution. It principally concerns the intellectual services: information generation, information sharing, consultation, education and research and development. It is sometimes incorporated into the tertiary sector but many argue that intellectual services are distinct enough to warrant a separate sector. Entertainment is also an important part of this sector.

The purpose of the IDR Act was to implement the industrial policy. It provides for The development and regulation of major industries IDR Act envisages balanced industrial growth all over India and optimum use of available resources and infrastructure. IDR Act also sees that the industries do not suffer due to financial mismanagement or technical inefficiency or operational defects. In certain cases Act provides for investigation by Union Government in cases of mismanagement and misadministration.
Industrialization: A New Era

Though agriculture has been the main preoccupation of the bulk of the Indian population, the founding fathers saw India becoming a prosperous and Modern State with a good industrial base. Programs were formulated to build an adequate infrastructure for rapid industrialization.

Since independence, India has achieved a good measure of self-sufficiency in manufacturing a variety of basic and capital goods. The output of the major industries includes aircraft, ships, cars, locomotives, heavy electrical machinery, construction equipment, power generation and transmission equipment, chemicals, precision instruments, communication equipment and computers. Early planners in free India had to keep in mind two aims: all-round development and generation of large-scale job opportunities. Economic development strategies were evolved with an eye on these twin objectives.

New International Economic Order

As a responsible and progressive member of the international community, India is continuing her untiring efforts to bring about a constructive dialogue between the developed and developing countries in their quest for a cooperative approach towards a new International Economic Order. India is convinced that the establishment of an equitable International Economic Order involving structural and other, change is the only answer to the various economic ills and problems of development confronting the world today.
Economic Restructuring

The international confidence in India’s economy has been fully restored.

The reforms launched have made India an attractive place for investment. Duties have been lowered, repatriation of profit made liberal and levels of foreign equity raised considerably, and 100% in case of export oriented industry.

While several multinational companies have entered the Indian market, some Indian companies have also begun to gain international recognition. In the field of computer software, India is among the major exporting nations with an overflow of scientists in the field.

With the conclusion of the Uruguay Round of Multilateral Trade Negotiations, India decided to join the new World Trade Organization, successor to GATT. India hopes that developing countries will not suffer on account of any protectionism.

On its part, India has opened several sectors hitherto restricted to the public sector. The rupee is convertible on the trade account. In 1994, exports grew by 17%. Figures for 1995-96 show that exports grew at a rate of 28.8%. About 90% of India’s import are financed by export earnings. The Non-Resident Indian (NRI) enjoys special incentives to invest in India like tax exemption and higher interest rates on deposits.

NRIs

The government acknowledges the great role that the vast number of Indians living and working abroad, the Non-Resident Indians can play in accelerating the pace of development in the country. In the 1980s, the NRIs contribution through their remittances was instrumental to a large extent in stabilizing the balance of payment situation. Several initiatives have been taken to attract NRI investments - in industry, shares and debentures. The NRIs are allowed 100% investment in 34 priority and infrastructure facilities on
non-repatriation basis. Approval is given automatically on investment in certain technical collaborations. They can buy Indian Development Bonds and acquire or transfer any property in India without waiting for government approval. The Foreign Exchange Regulation Act has been amended to permit NRIs to deal in foreign currency and they can also bring in five kg of gold. There are programs to utilize the scientific and technical talents of the NRIs with the help of the Council of Scientific and Industrial Research.

Infrastructure

In view of their crucial importance, power, transport and other infrastructure industries are owned by the State. As a result of special attention given to the area in recent years, the infrastructure industries have been growing at the rate of 9 to 10 per cent annually.

**Power:** The generation of power has increased impressively in recent years. In 1990-51, India generated 6.6 billion-kilowatt hour of electricity, in 1995-96 the figure was 380.1 billion-kilowatt hour. The installed capacity, which was 1400 MW at Independence in 1947, has crossed 83,288 MW. The policy of inviting private sector has been well received; about 140 offers that can generate over 60,000 MW of power have came in.

**Coal:** Coal is the primary source for power generation in India. The country has huge reserves of coal approximately 197 billion tons. A sufficient amount of lignite (brown coal used in thermal power stations) is also available. India produced about 270 million tons of coal in 1995-96. The government now welcomes private investment in the coal sector, allowing companies to operate captive mines.

**Petroleum and Natural Gas:** The recent exploration and production activities in the country have led to a dramatic increase in the output of oil. The country currently produces 35 million tons of crude oil, two thirds of which is from offshore areas, and imports another 27 million tons. Refinery production in terms of crude throughput of the existing refineries is about 54 million tons.
Natural gas production has also increased substantially in recent years, with the country producing over 22,000 million cubic meters. Natural gas is rapidly becoming an important source of energy and feedstock for major industries. By the end of the Eighth Five-Year Plan, production was likely to reach 30 billion cubic meters.

**Railways:** With a total route length of 63,000 Kin and a fleet of 7000 passenger and 4000 goods trains, the Indian Railways is the second largest network in the world. It carries more than 4000 million passengers per year and transports over 382 million tons of freight every year. It is well equipped to meet its demands for locomotives, coaches and other components.

Lately, the Railways have launched a massive gauge conversion drive as about a third of the track is meter or narrow gauge. With improvement in tracks, plans are afoot to introduce faster trains. Very soon, certain prestigious long distance trains will be running at 160 Kin per hour.

The Railways have also started a scheme to privatize several services that will include maintenance of railway stations, meals, drinking water and cleaning of trains.

**Road Transport:** The roadways have grown rapidly in independent India. Ranging from the cross-country link of the national highways to the roads in the deepest interiors, the country has a road network of 2.1 million-km. India also manufactures most of its motorized vehicles - cars, jeeps, trucks, vans, buses and a wide range of two-wheelers of various capacities. While Indian scooters have established a good foreign market, the car industry is also looking up with several foreign companies setting up plants in India.

**Shipping:** The natural advantage of a vast coastline requires India to use sea transport for the bulk of cargo transport. Following the policy of liberalization, the Indian shipping industry, major ports, as also national highways and water transport have been throw open to the private sector.
Shipping activity is buoyant and the number of ships registered under the Indian flag has reached 471. The average age of the shipping fleet in India is 13 years, compared to 17 years of the international shipping fleet. India is also among the few countries that offer fair and free competition to all shipping companies for obtaining cargo. There is no cargo reservation policy in India.

**Aviation** : India has an aviation infrastructure, which caters to every aspect of this industry. Hindustan Aeronautics Limited (HAL) is India's gigantic aeronautical organization and one of the major aerospace complexes in the world.

India's international carrier, Air India, is well known for its quality service spanning the world. Within the country, five international airports and more than 88 other airports are linked by Indian Airlines. Vayudoot, an intermediate feeder airline, already links more than 80 stations with its fleet of turboprop aircraft and it plans to build and expand its network to over 140 airports in the far-flung and remote areas of the country. Pawan Hans, a helicopter service, provides services in difficult terrain.

The Government has adopted a liberal civil aviation policy with a view to improving domestic services. Many private airlines are already operating in the country.

**Pipelines** : Oil and natural gas pipelines form an important transportation network in the country. The country completed recently, on schedule, one of its most ambitious projects, the 1700 km Hazira-Bijaipur Jagdishpur pipeline. Costing nearly Rs. 17 billion, the pipeline transports liquid gas from the South Bassein offshore field off Mumbai to Jagdishpur and Aonla, deep in the mainland in Uttar Pradesh. Besides, India has nearly 7,000 km of pipeline mainly for the transportation of crude oil and its products.

**Telecommunications** : With rapid advances in technology, India now uses digital technology in telecommunications, which derives advantage from its ability to interface with computers. The present strategy focuses on a balanced growth of the network rapid modernization, a quantum jump in key
technologies, increased productivity, and innovation in organization and management. Moving towards self-reliance, besides establishing indigenous R&D in digital technology, India has established manufacturing capabilities in both the Government and private sectors.

The private sector is expected to play a major role in the future growth of telephone services in India after the opening of the economy. The recent growth in telecommunications has also been impressive. Till September 1996, the number of telephone connections had reached 126.1 lakh (12.6 million). Soon every village panchayat will have a telephone. By 1997, cellular services in most major urban areas were functional, and telephone connections were available on demand. India is linked to most parts of the world by E-mail and the Internet.

Key Industries

Steel: The iron and steel industry in India is over 122 years old. However, a concerted effort to increase the steel output was made only in the early years of planning. Three integrated steel plants were set up at Bhilai, Durgapur and Rourkela. Later two more steel plants, at Bokaro and Vishakhapatnam, were set up. Private sector plants, of which the Tata Iron and Steel Company (TISCO) is the biggest, have been allowed to raise their capacity. The Steel Authority of India (SAIL), which manages the public sector plants, has undertaken a Rs. 40,500 crore program to modernize them. During 1995-96, production of salable steel in the country was about 21.4 million tons. The five SAIL plants accounted for over half of this: The export of iron and steel jumped from 9.10 lakh tons in 1992-93 (valued at Rs.'708 crore) to over 20 lakh tons (Rs. 1940 crore).

TISCO and a large number of mini steel plants in the country contribute about 40% of the steel production in the country. The Government has given a push to sponge iron plants to meet the secondary sector's requirement of steel scrap.
Engineering and Machine Tools: Among the Third World countries, India is a major exporter of heavy and light engineering goods, producing a wide range of items. The bulk of capital goods required for power projects, fertilizer, cement, steel and petrochemical plants and mining equipment are made in India. The country also makes construction machinery, equipment for irrigation projects, diesel engines, tractors, transport vehicles, cotton textile and sugar mill machinery. The engineering industry has shown its capacity to manufacture large-size plants and equipment for various sectors like power, fertilizer and cement. Lately, air pollution control equipment is also being made in the country. The heavy electrical industry meets the entire domestic demand.

Electronics: The electronics industry in India has made rapid strides in recent years. The country produces electronics items worth over Rs. 200 billion annually. Exports are also rising; in 1995-96 they reached Rs. 4.5 billion. The software export during the same year reached Rs 2.5 billion. Compared to 1994-95, the software export growth in 1995-96 rose by an impressive 70%. The Software Technology Park scheme for attracting investments has proved successful. The relative low cost of production in India makes items made in India competitive in the world market.

Some of the major items manufactured in India are computers, communication equipment, broadcasting and strategic electronics, television sets, microwave ovens and washing machines.

The compound growth of the computer industry has been 50% during the last five years. Almost the entire demand for floppy disk drives, dot matrix printers, CRT terminals, keyboards, line printers and plotters is met from indigenous production. With the availability of trained technical manpower, computers have been identified as a major thrust area. Special emphasis has been given to software export.

The Indian software industry has developed skill and expertise in areas like design and implementation of management information and decision
support systems, banking, insurance and financial applications, artificial intelligence and fifth generation systems.

Recognition for the Indian computer software industry has been global. Indian software enterprises have completed projects for reputed international organizations in 43 countries.

**Textiles** : Textiles, the largest industry in the country employing about 20 million people, account for one third of India’s total exports. During 1995-96, textile exports were estimated at Rs. 35,504.6 crore which was 13.3% more than the 1994-95 figure. In recent years, several controls have been removed and in October 1996, a new long-term Quota policy was announced to boost exports over the next three years, till 1999. Per person production of cloth is 20 meters after adopting liberalisation as a part of economy.

**Public Sector** : The public sector contributed to the initial development of infrastructure and diversification of industrial base. It is now being exposed to competition. Part equity of some units is being disinvested. But many core and strategic areas, important for economy and self-reliance, will remain in the public sector.

**Research and Development**

Research and Development activities are supported by the governments at the Center and the states as well as by public and private sector undertakings. The Department of Scientific and Industrial Research recognizes over 1200 in-house R & D units. About 200 research laboratories exist in government departments and agencies. The benefits of the R & D works are reaching various fields like industry, agriculture and commerce.

**Planning for Development**

The Planning Commission headed by the Prime Minister, draws up five-year plans under the guidance of the National Development Council to ensure growth, self-reliance, modernization and social justice. Its role has been redefined in the eighth plan document: from a centralized planning
system, India is moving towards indicative planning which will outline the priorities and encourage a higher growth rate. The Rs. 4,000 billion eighth plan envisaged a growth rate of 5.6%.

**Traditional Industry**

Indian handicrafts have withstood competition from machines over the years. The skills are passed on from one generation to the next. The handicraft and handloom sector is a major source of rural employment and earns substantial foreign exchange. Traditional textiles are as popular abroad as they are within the country. The major export items include hand-knotted carpets, art metalware, hand-printed textiles and leather, wood and cane wares.

**Exemption from Industrial Licensing**

See 29B(i) authorises Union Government to exempt any industry or class of industries from any of provisions of the Act. Presently, Union Government has exempted most of the industries from the provisions of licensing. There are only few industries (like paper, drugs and pharmaceuticals, etc.) which require licence. Licence is not required for other industry. Five industries (arms and ammunition) atomic energy, mineral oils, minerals for atomic energy and railway transport) are reserved for public sector. No licence is required for any other industry. However, the conditions are (a) prescribed locational restrictions are explained below should be observed (b) the product should not be reserved for small scale sector.

**Information by de-licensed Industries**

Industries which are exempt from licensing provisions or registration procedure, have to only submit information in prescribed form – called “Industrial Entrepreneurs Memorandum. (From IEM).

**Regulating Supply and Prices** : Union Government can provide for regulating supply and distribution any industrial article by issuing a notified order sec 189 (1) of IDRA. Such order can before (a) price control (b)
regulating distribution, transport, possession, use or consumption (c) prohibiting the withholding from sale of any article (d) requiring a person to sell industrial product to a particular class of persons. The sale can be at controlled price or mutually agreed price, at price prevalent in market (e) regulating or prohibiting, any class of commercial or financial transactions respect of the industrial product. (f) requiring that product should be marked with price, display, stock and display prices (g) collecting information or statistics for regulating above matters. (h) incidental or supplementary matters in respect of above like licences, permits, records etc.

De-licensing of many industries – New Industrial Policy envisages that some industries will be reserved exclusively for public sector. Excluding these industries, no industry will require licence, subject to certain conditions.

**Items Reserve Exclusively for Public Sector**

Annexure-I of policy statement gives list of 5 industries reserved for public sector. These are: Arms and Ammunition and allied defence equipment. Atomic Energy, Mineral. Oils, Minerals and Railway Transport. As per National Mineral Policy, 1993, minerals and minerals bearing areas have been de-reserved in respect of 13 minerals namely iron ore, manganese ore, chrome ore, gypsum, sulphur, gold, diamond, copper, lead, zinc, tin, molybdenum and wolfram. Out of ‘mineral oils’, petroleum (other than crude) and its distillation products are no more reserved for public sector.

**Products Requiring Licensing**

Annexure – II contains list of 6 industries for which industrial licensing is compulsory – after deletion of items upto 14.07.1997. These are alcoholic drinks, cigars and cigarettes, electronic aerospace and defence equipment industrial explosives, hazardous chemicals and drugs and pharmaceuticals as announced in Drugs Policy – Original list contained 18 limits – white goods, motor cars, paper and news print except biogases based units, plywood, veneer and other wood based products, animals fats and oils, asbestos and asbestos based products, tanned or dressed furskin and chamois leather and
plywood products appearing in that list have been subsequently removed. Coal & Lignite and petroleum (other than crude) and its distillation products have been removed from the list w.e.f. 8th June, 1998. Sugar has been delicensed in August 1998. The only condition is that distance between 2 sugar mills should be minimum 15 kms.

**Industrial Policy**

After Independence, the Government of India spelt out its approach to the development of the industrial sector in the Industrial Policy Resolution 1948. This was followed by the Industrial Policy Resolution, 1956. In between, the government introduced the Industries (Development and Regulation) Act, 1951 to regulate and control the development of the private sector. In 1969, MRTP Act (Monopolies and Restrictive Trade Practices Act) was adopted to prevent concentration of economic power and control monopolies. Another legislation that had considerable implications for industrial policy (as far as the participation of foreign companies in industrial sector of India is concerned) was the Foreign Exchange Regulation Act (FERA) adopted in 1973. However, all these measurers which guided and determined the State intervention in the field of industrial development failed in achieving the objectives laid down for them. They also created a number of inefficiencies, distortions and rigidities in the system. Therefore, the government started liberalizing the industrial policy in 1970s and 1980s. The most drastic liberalisation was carried out in 1991 when a New Industrial Policy was announced.

We shall discuss the MRTP, Act in chapter 32 on ‘Private Sector in the Indian Economy’ and the FERA in chapter 40 on ‘Multinational Corporations, FERA and FEMA.’ Other constituents of industrial policy are discussed in this chapter. The focus of discussion in this chapter, therefore is on:

- Industrial Policy Resolutions of 1948 and 1956
- Industries (Development and Regulation) Act, 1951
- Critical review of pre-1991 industrial policy and liberalisation trends
7.4.1 Industrial Policy Prior to 1991\textsuperscript{21}

**Industrial Policy Resolution, 1948**

The first important industrial policy statement was made in the Industrial Policy Resolution, 1948. The Resolution accepted the importance of both private and public sectors in the industrial economy of India. It divided the industries into the following four categories:

1. **Industries where State had a monopoly.** In this category, three fields of activity were specified – arms and ammunition, atomic energy and rail transport.

2. **Mixed sector.** In this category, the following 6 industries were specified – coal, iron and steel, aircraft manufacture, ship building, manufacture of telephone, telegraph and wireless apparatus (excluding radio sets) and mineral oils. New undertakings in this category were to be set up by the State but existing private undertakings were allowed to continue for 10 years after which the government was to review the situation and acquire any existing undertaking after paying compensation on a fair and equitable basis.

3. **The field of government control.** 18 industries of national importance were included in this category. The government did not undertake the responsibility of developing these industries but considered them of such importance that their regulation and direction was necessary. Some of the industries included were – automobiles, heavy chemicals, heavy machinery, machine tools, fertilizers, electrical engineering, sugar, paper, cement, cotton and woolen textiles.

4. **The field of private enterprise.** All other industries (not included in the above three categories) were left open to the private sector. However, the State could take over any industry in this sector also if its progress was unsatisfactory.

\textsuperscript{21} Misra & Puri, Indian Economy, 2010, Himalaya Publication. Pg.381
The 1948 Resolution also accepted the importance of small and cottage industries as they are particularly suited for the utilization of local resources and for creation of employment opportunities.

**Industries (Development and Regulation) Act, 1951**

To control and regulate the process of industrial development in the country, an Act was passed by the Parliament in October 1951. Known as the Industries (Development and Regulation) Act, 1951, the Act came into force on May 8, 1952. Though it aimed at both, development and regulation of private sector, its main task over the years has been to concentrate more on the ‘regulation’ aspect. The objectives that the Act sought to accomplish were: (i) the regulation of industrial investment and production according to plan priorities and targets; (ii) protection of small entrepreneurs against competition from large industries; (iii) prevention of monopoly and concentration of ownership of industries; and (iv) balanced regional development with a view to reducing disparities in the levels of development of different regions of the economy. It was hoped that through the instrument of industrial licensing, the State would be able to (i) direct investment into the most important branches, (ii) correlate supply and demand in the domestic market, (iii) eliminate competition and (iv) ensure the optimum utilization of social capital.

1. **Restrictive Provisions.** Under this category come all measures designed to curb unfair practices adopted by industries. These provisions were as follows: (i) Registration and licensing of industrial undertakings – Undertaking of all those industries which were included in the schedule of the Industries (Development and Regulation) Act, 1951 were required to be registered whether they come under the private sector or the public sector. Even in the existing undertakings intended expanding the activities, they required prior permission of the government; (ii) Enquiry of industries listed in the schedule – The responsibility of the State does not end with the registration or granting of licences to the undertakings. If the working of a particular industrial unit was not satisfactory (say, for example, there was substantial underutilization of capacity or product was not up to the mark or cost of production and price were excessive), the government could set up an
enquiry into the affairs of the particular undertaking; and (iii) Cancellation of registration and licence – If a particular industrial undertaking had succeeded in obtaining industrial licence and registration by submitting wrong information the government could cancel the registration under article 10(A) of the Act. In the same way, the government could cancel the licence if the undertaking was not set up within the stipulated period.

2. Reformatory Provisions. In this category, following provisions were considered: (i) Direct regulation or control by the government – If the government felt that a particular industry was not being run satisfactorily, it could issue directions for carrying out reforms. If these directions were not heeded to, the government could take over the management and control of that unit in its hands; (ii) Control on price, distribution, supply, etc. – The government was empowered in the Act to regulate or control the supply, distribution and price of the product manufactured by units belonging to the industries listed in the schedule of the Act, if it so wished; and (iii) Constructive measures – To inspire mutual confidence and elicit co-operation from the workers, the government established Central Advisory Council and a number of Development Councils for different products.

In the initial stages 37 industries (specified under the Act) were brought under the purview of the Act which was later extended to include 70 industries. Of these specified industries only those units were brought under the Act where the capital employed was Rs. 1 lakh or more. Since the net of coverage was too small, it was decided to cover all units (irrespective of size) under the Act in 1953 but the excessive administrative strain brought upon the authorities as a consequence of this decision, compelled them to scrap this decision in 1956. It was stated that henceforth the Act would be applicable only to enterprises employing 50 or more workers if worked with the aid of power or employing 100 or more workers if worked without the aid of power. In 1960 another change was made and all enterprises with fixed capital of Rs.10 lakh or less were exempted from the licensing procedure. The exemption limit was raised to Rs.25 lakh in 1963 and (subject to certain conditions) to Rs. 1 crore in 1970. The March 1978 industrial policy statement
liberalised the licensing policy further by raising the exemption limit from Rs.1 crore to Rs. 3 crore. It was later raised to Rs.5 crore. The government announced a major package of industrial delicensing during the year 1988-89. This package provided that henceforth, only projects involving an investment in fixed assets of more than Rs.50 crore, if they are located in backward areas, or more than Rs.15 crore if they are located in non-backward areas would require industrial licences.

**Industrial Policy Resolution, 1956**

The 1956 Resolution laid down the following objectives for the industrial policy: (i) to accelerate the rate of growth and to speed up industrialization; (ii) to develop heavy industries and machine making industries; (iii) to expand public sector; (iv) to reduce disparities in income and wealth; (v) to build up a large and growing cooperative sector; and (vi) to prevent monopolies and the concentration of wealth and income in the hands of a small number of individuals.

These objectives, it was thought, would help in generating more employment opportunities an in raising the standard of living of the masses. For this purpose, stress was laid on cooperation between public and private sectors but an increasing role was envisaged for the former so that, in due course of time, it could gain ‘commanding heights’ of the economy.

The 1956 Resolution divided the industries into the following three categories:

1. **Monopoly of the State.** In this category, 17 industries were included whose future development was to be the exclusive responsibility of the State. These were listed in Schedule-A appended to the Resolution. Of the 17 industries, 4 industries – arms and ammunition, atomic energy, railway and air transport – were to be government monopolies. In the remaining 13 industries, new units were to be established by the State but existing private units were allowed to subsist and expand. New units in the private sector could also be allowed ‘when the national interest so required.’
2. Mixed sector of public and private enterprise. In this section 12 industries listed in Schedule B (appended to the Resolution) were included. These were: all other minerals (except minor minerals), road transport, sea transport, machine tools, ferro-alloys and tool steels, basic and intermediate products required by chemical industries such as manufacture of drugs, dyestuffs and plastics, antibiotics and other essential drugs, fertilizers, synthetic rubber, chemical pulp, carbonization of coal, and aluminum and other non-ferrous metals not included in the first category. In these industries, State would increasingly establish new units and increase its participation but would not deny the private sector opportunities to set up units or expand existing units.

3. Industries left for private sector. All industries not listed in schedules ‘A’ or ‘B’ were included in the third category. These industries were left open to the private sector. Their development was to depend on the initiative and enterprise of the private sector, though even here the State could start any industry in which it was interested.

The 1956 Resolution emphasized the mutual dependence of public and private sectors. The only 4 industries in which private sector was not allowed to function were arms and ammunition, atomic energy, railways and air transport. In all other industries, either the private sector was allowed to operate freely or its help could be obtained if the government deemed fit. However, the private sector was to remain subject to various government regulations and controls as specified in Industries (Development and Regulation) Act, 1951 and other related regulations.

The 1956 Resolution recognized the importance of small-scale and cottage industries just as the 1948. Resolution had done. It also called for the reduction in regional imbalances and inequalities. For this purpose, it advocated that transport facilities, power and other facilities should be provided in backward regions.

As compared to the 1948 Resolution, the 1956 Resolution considerably enlarged the area of operation of the public sector as the exclusive
responsibility of the State was enlarged from 6 to 17 industries (Schedule A). In addition, another category including 12 industries (Schedule B) was defined where the State could participate on an increasing scale. However, the 1956 Resolution dropped the ‘threat’ of nationalization that the 1948 Resolution contained and the division of industries in different categories was more flexible in the former as compared to the latter. The fact is that the basic objective of both the Resolutions was the same—strengthening the mixed economy structure of the country.

7.4.2 Review of Pre-1991 Industrial Policy and Liberalisation Trends

The actual operation of the industrial policy (particularly the industrial licensing policy) has been a subject of much debate and criticism. Several studies on the implementation of the licensing policies and the functioning of the industrial approval system pointed out a number of flaws and deficiencies. Reports of the various Committees and Commissions appointed by the government itself (Monopolies Enquiry Commission in April 1964, Dr. R. K. Hazari in 1965 and Dutt Committee in 1967) pointed out that the licensing policy had failed to achieve its objectives. In many cases, the results were just the opposite of what the government had planned. The main points of criticism have been as follows:

1. Licensing and underutilization of capacity. Licensing was supposed to ensure creation of capacities according to plan priorities and targets. However, no clear priorities for private sector were laid down in plans and therefore the private sector chose those industries which appeared more profitable. In many cases, these industries happened to be luxury industries and frequently they also satisfied the technical curiosity of the D.G.T.D. (Directorate General of Technical Development) and were, therefore, granted licenses in defiance of the needs of essential industries producing commodities for mass consumption.

The grant of a licence to an enterprise was no guarantee that the production capacity permitted would actually be installed. The government had the right to take away a licence only several years later. Because of this
fact, capacity created, in some cases, was less than allowed. Many industries (especially those belonging to the large monopoly houses) indulged in such practices to restrict output and raise prices. Since the government had no guarantee that the licensed capacity would actually be installed within the stipulated time, it adopted the practice of granting licences for capacities far in excess of the plan targets, from the end of the Second Plan. In those cases where actual implementation was larger than expected (as, for example, in the case of paper industry, cement industry and ceramic production) a sizable unutilized capacity appeared. In some cases, overlicensing of an industry deterred the licencees from implementing their full licensed capacities for fear of excessive capacity creation in the industry. As a consequence of this, industries over-licensed in the Third Plan were marked by under fulfillment of capacity.

2. Licensing and concentration of economic power. As noted by Aurobindo Ghosh, in India: “It is industrial licensing which limits the areas of private investment and also determines entry into specific industries. The total volume of licensable private investment is normally (though not always) fixed in relation to the total Plan target of private investment in industry. This generally holds true of licensing in particular industries also; i.e., in correspondence with Plan targets of capacity in specific industries. In such a situation, oligopolistic rivalry proceeds principally through competition for investment opportunities at the stage of entry into the industry itself.’ This explains the behavior of the large industrial houses in India who sought “Pre-emption of investment opportunities” though acquiring as much industrial licences as possible thereby ensuring an increasing share of new capacities created on the one hand, and on the other hand keeping out potential rivals. Since a major objective of the Industries (Development and regulation) Act was the prevention of monopoly and concentration of the ownership of industries, it was expected to foil the attempt of the large industrial houses. However, as all Enquiry Committees have noted, the operation of licensing policy actually helped the large houses in achieving their ends in a number of ways. As noted by the Dutt Committee, the licensing authorities many times used their discretionary powers in favour of the large houses. This “has been
revealed through their different practices, e.g., their early intimation of impending licensing to an applicant, inadequate scrutiny and/or expeditious disposal of licence applications, ‘on file decisions’ without going through the Licensing Committee, reversal of earlier decisions, etc.”

3. Discretionary powers of licensing authorities. Martinussen has pointed out that because of the considerable discretionary powers vested in the regulatory agencies, the whole system tended to promote corruption, rent-seeking and discrimination based on personality relationships.

In this context, Martinussen emphasizes two features of the formal bureaucratic institutions functioning in India: First, “although separated from the rest of society by effective socialization processes and specific rules which govern their behavior, government officials often remain loyal to outside social networks. They are inclined in general to favour members of their own social network.” Second, “the individual government official at higher levels of the hierarchy is vested with considerable discretionary powers in his discharging of administrative functions. This has increased the scope for outside influence and for discrimination based on personalistic relationships.”

Because of the loyalty to outside social networks and personalistic relationships, a strong nexus between high government officials and managers of large industrial houses emerged in this country. As a result, the actual functioning of the industrial approval system in India favoured large industrial houses. In his empirical study, Martinussen found that none of the large industrial houses included in his sample had sustained severe setbacks due to government regulations. On the contrary, the managers or the board members of large industrial houses told him that they had received all the licences they wanted, although with some delay in most of the cases. Even with regard to industries explicitly reserved for the public sector, several of the respondents cited instances where their companies had obtained permissions to set up units or expand production. The whole system of operational controls simply favoured large business houses as only they had enough resources to cope with the bureaucracy in Delhi. Newcomers and smaller enterprises could rarely exploit personalistic relationships with the government.
officials and were therefore left out. Thus, the industrial approval system impeded entry of new promoters and entrepreneurs, contrary to official objectives.

4. Licensing and regional imbalances. One of the avowed objectives of industrial licensing policy was the reduction in regional inequalities and imbalances. However, the actual operation of this policy has accomplished just the opposite – it tended to increase regional inequalities. As noted by the Dutt Committee, the four industrially advanced States of Maharashtra, Gujarat, West Bengal and Tamil Nadu benefited the most from the operation of this policy. For example, in the decade 1955-65, these four industrially advanced States accounted for 59.3 per cent of the applications and 62.42 per cent of the licences approved. On the other hand, the poor States of Bihar, Orissa, Uttar Pradesh and Madhya Pradesh received only 15.5 per cent of total licences approved. These trends continued in later years also. For instance, during the thirteen years period 1979 to 1992, the four industrially advanced States of Maharashtra, Gujarat, Tamil Nadu and West Bengal received 46.4 per cent of total licences issued whereas the combined share of Bihar, Orissa, Madhya Pradesh and Uttar Pradesh was only 16.2 per cent.

Because of this discrimination against the backward regions, the government decided to issue more licences to such regions. However, even here the developed States benefited more as it were their backward areas that got more licences as compared to the backward areas of the poor States. For instance, of the total 2,321 licences issued to backward areas during 1982 to 1992, backward areas of the four developed States of Maharashtra, Gujarat, Tamil Nadu and West Bengal got 37.6 per cent licences while the backward areas of Bihar, Orissa and Madhya Pradesh got only 9.8 per cent of the total licences.

5. Delays in processing of applications. Two developments added significantly to the burden on both the regulatory authorities and the private entrepreneurs. On the one hand, the coverage and degree of detail of the regulations was increased significantly (for instance an amendment to IDR Act in 1953 made it compulsory for companies to obtain a licence for the
production of any ‘new article’ while in 1956 industrial activity and products were defined in much greater detail, thus adding to the number of permissions required), while on the other hand, industrial growth and diversification increased the scarcity of resources allocated administratively. The outcome was increasing delays in the processing of applications. Moreover, the Licensing Committee worked in a very haphazard and ad hoc manner and there were no definite criteria adopted for acceptance or rejection of applications. This lack of explicit economic criteria was accompanied by the generally poor quality of techno-economic examinations conducted by the Directorate General of Technical Development (D.G.T.D.) which also took an unnecessarily long time for disposing of cases and submitting its recommendations to the Licensing Committee. All these factors impeded industrial growth.

The Liberalisation Trends

Because of the above criticisms indicating the failure of the industrial licensing policy in achieving its objectives, the Government of India announced a number of liberalisation measures in the Industrial Licensing Policy announced in 1970, 1973 and 1978. In 1980, the government came forward with an Industrial Policy Statement which served as a guideline to various liberalisation measures undertaken all through the 1980s. Some of these measures were as follows:

1. **Exemption from Licensing.** The limit of exemption from licensing was continuously raised upwards. In March 1978 the limit was fixed at Rs.3 crore. During 1980s it was first raised to Rs.5 crore in 1983 and then to a whopping Rs.15 crore for projects located in non-backward areas and Rs.50 crore for projects located in non-backward areas and Rs.50 crore for projects located in backward areas in 1988-89 (under certain conditions).

2. **Relaxations to MRTP and FERA Companies.** Under the pretext of expanding industrial production and promoting exports, various concessions were provided to companies falling under the MRTP Act (Monopolies and Restrictive Trade Practices Act) and FERA (Foreign Exchange Regulation
Act). The most important relaxation related to the raising of the limit for MRTP companies from Rs.20 crore to Rs.100 crore (i.e., by five time) at one stroke in March 1985. In May 1983, the government notified that MRTP companies are eligible to set up, without the approval of the government, new capacities in industries of high national importance or industries with import substitution potential or those using sophisticated technology. On December 24, 1985, the government permitted the unrestricted entry of large industrial houses and companies governed by FERA into 21 high-technology items of manufacture. With this permission, the large industrial houses falling within the purview of the MRTP Act and FERA companies were allowed to freely take up the manufacture of 83 items. The government specified a list of 33 broad groups of industries under Appendix I in which MRTP and FERA companies were permitted to set up capacities provided the concerned items are not reserved for the small-scale or public sectors. Various other concessions like regulation of excess capacity and capacity re-endorsement, facilities to set up industries in backward areas etc. were also granted to MRTP and FERA companies.

3. Delicensing. With a view to encouraging production, the government delicensed 28 broad categories of industries and 82 bulk drugs and their formulations. For these industries only registration with the Secretariat for Industrial Approvals was now required: no licence had to be obtained under the Industries (Development and Regulation) Act. This was subject to the conditions that the undertakings concerned do not fall within the purview of the Monopolies and Restrictive Trade Practices (MRTP) Act or the Foreign Exchange Regulation Act (FERA), that the article of manufacture was not reserved for the small-scale sector and that the undertaking concerned was not located within specified urban locales. During 1989-90, some more industries were delicensed.

4. Re-endorsement of Capacity. With a view to improving capacity utilization in industries, the government announced a scheme of capacity re-endorsement in April, 1982. During 1986, this scheme was liberalised to allow undertakings which had achieved 80 per cent capacity utilization (as against 94 per cent earlier) to avail of the facility. The re-endorsed capacity was to be
calculated by taking the highest production achieved during any of the previous five years plus one-third thereof. The undertakings which were able to achieve capacity utilization equal to the re-endorsed level were to get further re-endorsement according to the highest production achieved in subsequent years. The number of industries for which automatic re-endorsement of capacity was not available was reduced from 77 to 26. With a view to encourage modernization, renovation, replacement, etc., the government announced in 1986 exemption from licensing requirements of increases up to 49 per cent over licensed capacity.

5. Broad Banding of Industries. The scheme of broad banding of industries was introduced in 1984. This implied classification under broad categories – of two wheelers, four-wheelers, as well as machinery for fertilizers, pharmaceuticals, and paper and pulp etc., into generic categories. Thus, to take one example, cars, jeeps, light, medium and heavy commercial vehicles, etc., were clubbed together into the generic category of “four wheelers”. This measure was intended to enable the manufacturers to change their product-mix rapidly to match changes in demand patterns without incurring procedural delays and other costs associated with seeking amendments to their industrial licences. Broad-banding was extended in stages to cover 45 broad industry groups.

6. Minimum Economic Scales of Operation. Another important concept introduced in the field of industrial licensing was that of minimum economic level of operation. This was introduced in 1986. The idea was to encourage realization of economies of scale by expansion of existing installed capacities of undertakings to minimum economic levels of operation. With this end in view, minimum economic capacities (MECs) were specified for 108 industries till 1989. Expansion of existing installed capacities was encouraged upto these MECs if they fell short of the latter. During 1989-90, MECs were specified for some more industries.

7. Development of Backward Areas. For promoting the development of backward areas, the government extended the scheme of delicensing in March 1986 to MRTP/FERA companies in respect of 20 industries in
Appendix I for location in centrally declared backward areas. The scheme was later extended to 49 industries for location in any centrally declared backward area and to 23 non-Appendix – I industries for location in category ‘A’ backward districts. The conditions permitting MRTP and FERA companies to establish non-Appendix I industries in backward districts were also liberalised.

Recognizing that one of the impediments blocking the industrialization of backward areas of the country is the absence of infrastructural facilities, the government announced the decision in 1988-89 to set up 100 growth centres spread across the country over a period of five years or so. It was decided to provide funds of the order of Rs.25 crore to Rs.30 crore to each growth centre for creating infrastructural facilities of a high order.

8. Incentives for Export Production. Various concessions were announced by the government in its industrial policy and export-import policy from time to time to promote the expansion of exports. As mentioned earlier, MRTP and FERA companies were permitted (outside the Appendix I industries) if the product is predominantly for export. With a view to providing fillip to production in industries of high national priority and/or those meant exclusively for export, the government introduced Section 22-A in the MRTP act whereby it could notify industries or services to which Section 21 and 22 of the Act will not apply. In October 1982, all 100 per cent export oriented industries set up in the Free Trade Zones were exempted from Sections 21 and 22 of the Act. In addition, the government identified some industries which were especially important from export angle. These industries were allowed 5 per cent automatic growth per annum, upto a limit of 25 per cent in a plan period over and above the normal permissible limit for 25 per cent excess production over the authorized capacity.

9. Enhancement of Investment Limit for SSI Units and Ancillary Units. As stated earlier, the July 1980 Statement fixed the investment limit for small-scale industries at Rs. 20 lakh and for ancillary units at Rs.25 lakh. In March 1985 these limits were enhanced to Rs.25 lakh and Rs.45 lakh respectively. For tiny units, the investment limit stood at Rs.2 lakh. A government notification issued in April 1991 raised the investment limit for
small-scale industry from Rs.35 lakh to Rs.60 lakh. In August 1991, the investment limit for tiny units was raised to Rs.5 lakh. In February 1997, the investment limit for small-scale units and ancillary units was raised to Rs.3 crore. The investment limit for tiny units was raised from Rs.5 lakh to Rs.25 lakh. The investment limit for small-scale industry was reduced to Rs.1 crore in 1999. Now MSMED Act, 2006, has raised this investment limit to Rs.5 crore for manufacturing enterprises and Rs.2 crore for service enterprises.

7.4.3 New Industrial Policy, 1991

In line with the liberalisation measures announce during the 1980s, the government announced a New Industries Policy on July 24, 1991. This new policy de-regulates the industrial economy in a substantial manner. The major objectives of the new policy are “to build on the gain already made, correct the distortions or weaknesses the might have crept in, maintain a sustained growth in productivity and gainful employment, and attain international competitiveness.” In pursuit of these objectives, the government announced a series of initiatives in respect the policies relating to the following areas:

A. Industrial Licensing

B. Public Sector Policy

C. MRTP Act

D. Foreign Investment and Technology

A package for the small and Tiny Sectors of industry was announced separately in August 1991.

Abolition of Industrial Licensing

Industrial licensing policy in India has been governed by the Industries (Development and Regulation) Act, 1951. As we have discussed above, industrial licensing policy and procedures have been liberalised considerably from time to time. Yet, the industrial licensing policy has all along been resented to by the entrepreneurs as it led to unnecessary governmental
interference, delays in investment decisions and bureaucratic red-tapism, corruption etc. Not only this, the industrial licensing policy was also unable to achieve the objectives laid down for it by the government. On account of these considerations, and in order to liberalise the economy and to enable the entrepreneurs to make investment decisions on the basis of their own commercial judgment, the 1991 industrial policy abolished industrial licensing for all but 18 industries. The 18 industries for which licensing was kept necessary were as under – coal and lignite; petroleum (other than crude) and its distillation and brewing of alcoholic drains; sugar; animal fats and oils; cigars and cigarettes; asbestos and asbestos-based products; plywood and other wood based products; raw hides and skins and leather; tanned on dressed furskins; motor cars; paper and newsprint; electronic aerospace and defence equipment; industrial explosives; hazardous chemicals; drugs and pharmaceuticals; entertainment electronics; and white goods (domestic refrigerators, washing machines, airconditioners, etc.). With the passage of time, most of these industries have also been delicensed. As of now, licensing is compulsory for only 5 industries. These are alcohol, cigarettes, hazardous chemicals, electronics aerospace and defence equipment, and industrial explosives.

In respect of delicensed industry, no approval is required from the government. However, entrepreneurs are required to file and Industrial Entrepreneur Memorandum (IEM) to the Secretariat for Industrial Approvals (SIA) provided the value of investment on plant and machinery of such, unit is above Rs.10 crore.

Public Sector’s Role Diluted

The 1956 Resolution had reserved 17 industries for the public sector. The 1991 industrial policy reduced this number to 8: (1) arms and ammunition, (2) atomic energy (3) coal and lignite, (4) mineral oils, (5) mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond, (6) mining of copper, lead, zinc, tine, molybdenum and wolfram, (7) minerals specified in the schedule to the atomic energy (control of production and use order), 1953, and (8) rail transport. in 1993, items 5 and 6 were deleted from
the reserved list. In 1998-99, items 3 and 4 were also taken out from the reserved list. On May 9, 2001, the government opened up arms and ammunition sector also to the private sector. This now leaves only 3 industries reserved exclusively for the public sector – atomic energy, minerals specified in the schedule to the atomic energy (control of production and use order) 1953, and rail transport.

The new industrial policy also states that the government will undertake review of the existing public enterprises in low technology, small-scale and non-strategic areas as also when there is low or nil social consideration or public purpose. Sick units will be referred to the Board for Industrial and Financial Reconstruction (or a similar body) for advice about rehabilitation and reconstruction. For enterprises remaining in the public sector, it is stated that they will be provided a much greater degree of management autonomy through the system of MOU (memorandum of understanding).

The government has also announced its intention to offer a part of government shareholding in the public sector enterprises to mutual funds, financial institutions, the general public enterprises to mutual funds, financial institutions, the general public and the workers. A beginning in this direction was made in 1991-92 itself by divesting part of the equities of selected public sector enterprises. Over the period 1991-92 upto 2009-10, the government has raised Rs.57,683 crore through this means. The new industrial policy indicates the government’s intention to invite a greater degree of participation by the private sector in important areas of the economy.

**Other Liberalisation Measures**

1. **Industrial location policy liberalised.** In a departure from the earlier locational policy for industries, the new industrial policy provided that in locations other than cities of more than 1 million population, there will be no requirement of obtaining industrial approvals from the Centre, except for industries subject to compulsory licensing. In cities with a population of more than 1 million, industries other than those of a non-polluting nature were required to be located outside 25 kms. of the periphery.
Major amendment in the industrial location policy was effected during 1997-98. The requirement of obtaining industrial approvals from the Central government (except for the industries under compulsory licensing) for establishing units at locations not falling within 25 kms of the periphery of cities having a population of more than 1 million was dispensed with. However, notified industries of a non-polluting nature such as electronics, computer software and printing, may be located within 25 kms of the periphery of cities with more than 1 million population. Other industries are permitted only if they are located in designated industrial areas set up prior to July 25, 1991. Zoning and Land Use Regulations as well as Environment legislation continue to regulate industrial locations.

2. Abolition of Phased Manufacturing Programmes for new projects. To increase the pace of in-digenisation in manufacturing, Phased Manufacturing Programmes have been in force in a number of engineering and electronic industries. The new industrial policy has abolished such programmes in future as the government feels that due to substantial reforms made in the trade policy and the devaluation of the rupee, there is no longer any need for enforcing the local content requirements on a case-by-case, administrative basis. Various incentives that are currently available to manufacturing units with existing Phased Manufacturing Programmes will continue.

3. Removal of mandatory convertibility clause. A large part of industrial investment in India is financed by loans from banks and financial institutions. These institutions have followed a mandatory practice of including a convertibility clause in their lending operations for new projects. This has provided them an option of converting part of their loans into equity if felt necessary by their management. Although this option has not generally been exercised, it has often been interpreted as an unwarranted threat to private firms of takeover by financial institutions. The new industrial policy has provided that hence forth financial institutions will not impose this mandatory convertibility clause.
Appraisal of New Industrial Policy

According to J. C. Sandesara, the new industrial policy seeks to raise efficiency and accelerate industrial production in five different ways:

(1) A number of changes in industrial licensing policy, foreign investment, foreign technology agreements and MRTP. Acts are such as to do away with the prior clearance of the government. In such cases, project time and, therefore, project cost will be reduced. Material and human resources engaged in cultivating contacts and ‘getting things done’ will be released for more productive uses. Thus, efficiency will improve.

(2) The changes in respect of foreign investment and foreign technology agreements are also designed to attract capital, technology and managerial expertise from abroad. This will raise the availability of such scarce resources in the country on the one hand, and will improve the level of efficiency of production on the other hand.

(3) Some changes as regards public sector may enhance the ‘allocative efficiency’. Opening. Opening up of the areas so far reserved for the public sector to the private sector implies an opening for the sector which has, by and large, given a better account of itself. Closure, liquidation or rehabilitation etc. of sick/weak public sector units will free resources for more productive use. Similarly, privatization may make for improved efficiency of the public sector, through its being subjected to the stock market discipline.

(4) Other measures in this area such as purposeful formulation and implementation of Memorandum of Understanding and its monitoring, professionalization and greater autonomy may be expected to improve the performance of the enterprises that will remain in the public sector.

(5) Greater emphasis in controlling and regulating monopolistic, restrictive and unfair trade practices and the strengthening of the powers of the MRTP Commission will curb anti-competitive behavior of firms in the monopolistic, oligopolistic and ineffectively competitive markets and thus promote competition and efficiency.
However, the new industrial policy 1991 has invited scathing criticism from a number of quarters. The main points of criticism are as follows:

1. **Erratic and fluctuating industrial growth.** As noted above, the new industrial policy considerably reduced the interventionist barriers to the entry of domestic and foreign investors, resulting in what has been proclaimed as a much more competitive environment in the industrial sector. It was hoped that this ‘much more competitive environment’ would, in itself, induce higher growth rates in the industrial sector. However, as discussed in Chapter 26, this has not happened. In fact, the rate of growth in the industrial sector declined in the post-reform period (particularly during the latter half of 1990s). For instance, the rate of growth of industrial production was only 5.0 per cent per annum during the period of the Ninth Plan (1997-98 to 2001-02) whereas it was 7.8 per cent per annum in the pre-reform decade (1980-81 to 1991-92). During 1990s as a whole (1990-91 to 1999-2000), the rate of growth of industry was only 5.7 per cent per annum. What is more, the decade of 1990s witnessed erratic and fluctuating industrial growth rates in different years leading to conditions of instability and uncertainty. However, the industrial sector registered strong positive growth of 8.2 per cent per annum during the period of the Tenth Plan (2002-03 to 2006-07).

The suggests that “liberalisation per se has not been enough to ensure high rates of growth of investment and productive activity, and that other strategies may be necessary to encourage the ‘animal spirits’ of entrepreneurs.”

2. **Distortions in production structure.** From the point of view of long run industrial development, the most important group of industries is the group of capital goods industries. However, the rate of growth of this group of industries fell drastically from 9.4 per cent per annum during 1980s to only 4.7 per cent per annum over the Ninth Plan period. This points to the distortions in production structure during 1990s.

3. **Threat from foreign competition.** In the early euphoria of liberalisation, the private sector industrialists welcomes the new industrial
policy 1991 but they soon came to realize that opening up the Indian economy to foreign competition meant more and cheaper imports, more foreign investment, opportunities to the MNCs (multinational corporations) to raid and takeover their enterprises, and worse, their inability to meet the challenge from MNCs due to their weak economic strength vis-à-vis the MNCs. In the new liberalised scenario that has emerged in the post-1991 reform phase, the Indian businessmen are facing unequal competition from MNCs. The unequal competition stems from a number of reasons discussed in detail in the section on ‘Effects of Globalisation’ on “Globalisation and its Impact on the Indian Economy.” As stated therein, the Indian enterprises suffer from ‘size disadvantages’ as they are just minuscules in comparison with MNCs’ they have for long operated in a protectionist environment which promoted inefficiencies in production; the cost of capital to Indian business is much higher than for MNCs; they are very weak financially in comparison with MNCs; high multiple and cascading indirect taxes – especially at the local level, where they are not applicable to foreign imports – result in making Indian goods uncompetitive; etc. On account of these reasons, the Indian industry associations (particularly the Confederation of Indian Industry) have recently adopted a very critical attitude to the government’s new industrial policy. The basic position of CII is the India has moved from too much protection to too little protection, which may eventually result in policy-induced de-industrialisation. The overall business demand is for a level playing field.

4. Dangers of business colonialisation. The various measures to promote foreign investment contained in the new industrial policy and the various concessions to such investment announced in recent years have provided opportunities to MNCs to penetrate the Indian economy and gobble up Indian enterprises. Baldev Raj Nayar has pointed out three strategies adopted by the MNCs to penetrate the Indian economy through FDI (foreign direct investment). One, some foreign investors have bought off existing local brands alongwith the branded products with the aim of replacing such products with their own internationally known products, eliminating in the process the possibility of competition from the local products. Two, some foreign investors initially opted for joint ventures with Indian partners to gain
easy foothold in the domestic industry but, once having consolidated their position, reduced the Indian partner to a subordinate position or simply ousted him. Thus, many Indian businessmen feel that MNCs simply use them as a ‘door mat’ for entry and spread risk only to be dumped later. Three, some foreign investors, even as they started out with local partners in a joint venture, then went on to set up parallel 100 per cent subsidiaries of their own in the same field, which were then favoured with greater sources and more modern technology, rendering the joint venture uncompetitive and useless. The aggression which MNCs have shown to devour domestic enterprise has raised the dangers of business colonalisation.

5. Misplaced faith in foreign investment. Various policy pronouncements of the government in recent years indicate that it expects foreign investment to help in technological up gradation of the industrial sector and push up export earnings. However, this faith in foreign investment is misplaced. As pointed out by H. K. Paranjape, none of the MNCs operating in this country has attempted to develop India as an important base for a significant part of its world-wide research and development work. Despite various tax concessions and incentives none of the multinationals tried to expand export markets. They undertook export activities only to the extent they were compelled to do so under export obligations, or when it was found necessary to do so in order to be able to earn foreign exchange for importing some of their essential requirements.

Coming to the import of foreign technology, Paranjape again expresses some reservations. According to him, in the whole eagerness to import foreign technology, little attention seems to have been paid to the possibility that production and managerial technologies found more suitable in other countries may not necessarily prove to be the best in our circumstances. As correctly pointed out by him, one of the very purposes of India’s industrialization is to ensure that our very large manpower resources are effectively utilized. This implies the adoption of labour-intensive and capital saving technologies in whichever areas it is feasible to do so. This may imply
major readjustments in technologies that have developed in the labour scarce and capital abundant rich countries. This will not be an easy task.

6. **Personalistic relationships and corrupt practices continue to prevail.** As stated earlier, the ‘licence permit raj’ of the pre-1991 period provided ample scope for rent seeking as the entire operations of the industrial licensing policy were governed by personalistic relationships. According to John Dengbol-Martinussen while delicensing and de-regulation has undoubtedly discouraged rent seeking and corruption at the Central government level, these practices have continued and may have even increased at the State government level. This is due to the reason that while the number of interaction points between government officials and entrepreneurs have declined at ‘the Union level, they have generally increased at the State level providing ample scope for continued interaction on a personalistic basis.

**References :**

3. Ibid., p.89.
4. Ibid., p.89.
5. Ibid., pp.91-2.
9. For a detailed discussion refer to the chapter on “Private Sector in the Indian Economy” and the chapter on “Multinational Corporation, FERA and FEMA.”


11. Under the automatic route, prior approval is not required; only the reporting stipulations have to be met for monitoring purposes. The automatic approval reduces the scope of discretionary use of powers by the Foreign Investment Promotion Board.


7.5 Evaluation of Some Major Industries of India

7.5.1 Sugar Industry

India is the largest producer and consumer of sugar in the world. Sugar industry is the second largest agro-based industry in the country next only to textiles. About 45 million sugarcane farmers, their dependents and a large agricultural force, constituting 7.5 per cent of the rural population, is involved in sugarcane cultivation, harvesting and ancillary activities. Besides, about 0.5 million skilled and semi-skilled workers, mostly from rural areas, are engaged in the sugar industry. The sugar industry in India has been a focal point for socio-economic development in the rural areas by mobilizing rural resources, generating employment and higher income, transport and communication facilities.

The history of sugar industry in India begins in 1903 when a sugar factory was set up in Bihar and U.P. each. In 1932 there were 32 factories operating in the country. In that year tariff protection was granted to the industry and, as a result, the number of factories shot up to 137 by 1937 and India became self-sufficient in sugar. Because of the extensive cultivation of sugarcane as a commercial crop in northern India, the sugar industry was localized for quite some time in U.P. and Bihar. For instance, in 1936-37, 85 per cent of the sugar production came from these two States. Their share in 1960-61 also stood at about 60 per cent. However, in the last four decades, the industry has developed at a fast rate in Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu. Since the sugar mills in these States have been set up in recent decades, their production efficiency in greater and costs of production lower as compared to the mills in U.P. and Bihar. At present, there are 582 sugar factories in the country (as against 138 during 1950-51). The aggregate capacity of these factories is 197.97 lakh tones.

Production of sugar has increased by leaps and bounds in the planning period. From 11.34 lakh tones in 1950-51, production of sugar shot up to 51.48 lakh tones in 1980-81 and further to the record level of 132.77 lakh tones in 1991-92. This enabled India to become the largest producer of
sugarcane and sugar in the world leaving the other major producers – Brazil and Cuba – way behind. Sugar production touched an all-time high of 201.32 lakh tones in 2002-03 but fell to 139.58 lakh tones in 2003-04 due to drought in major sugar producing States like Maharashtra, Karnataka and Tamil Nadu and Wooly Aphids pest infestation.\textsuperscript{15} Sugar production in 2007-08 sugar season (October-September) stood at 263 lakh tones and this fell steeply to only 146.80 lakh tones in 2008-09 forcing the government to allow imports to augment domestic availability and cool prices.

**Sugar Policy of the Government**

The sugar economy in the country has traditionally been a highly controlled one and the industry was delicensed only recently in September 1998. The Janata Government way back in 1977 did try to decontrol sugar but this decontrol proved to be short-lived as sugar prices crashed in the absence of a monthly quota release mechanism. Therefore, controls were reimposed soon. Since 1979, the government has been following a policy of dual prices through which a specified percentage of total production of each sugar factory is procured as levy sugar at notified prices for distribution through the PDS (public distribution system). The ratio of levy sugar and free sale sugar from 1992-93 to the end of December 1999 was 40:60. The levy to free sale ratio was reduced from 40:60 to 30:70 from January 2000 and subsequently to 15:85 and 10:90 with effect from February 1, 2001 and March 1, 2002 respectively. The levy share has been reduced to 10 per cent because families above poverty line are now not to be provided sugar from the PDS (excepting North East States, hill States and island territories) with the result that the government would now require much less levy sugar for distribution through the PDS.

In January 1997, the sugar industry was brought under a regime of free licensing, which entitled the time-bound grant of licences without a due-diligence exercise or a ministerial revaluation of the project. As a result of this policy, there was a scramble for the creation of additional capacity. On the eve of delicensing in September 1998, the number of licences granted for new mills stood at 236 while those for capacity expansion stood at 1800. Additional
capacity sanctioned was a much as 150 lakh tones in just two years against the then prevailing total capacity of 134 lakh tones. The biggest draw for the setting up new capacity was the incentives offered with the licences: exemption from the supply of levy sugar for a period ranging from 5 to 10 years (i.e., the new units could sell 100 per cent of their production in open market for a number of years) and preferential treatment from the financial institutions, the preferential treatment from the financial institutions, the primary lenders. “This meant that a mill could recover its cost in 5 years, make profits in the remaining 5, and conveniently, turn sick once the incentives expired. What the government was offering was a sweet haven for fly-by-night operators. Not surprisingly, a few existing mills also snapped up licences to pre-empt competition.”

Sugar Development Fund

Under the Sugar Cess Act 1982, a cess of Rs.14.00 per quintal is collected on all sugar produced in the country and an amount equal to the same is credited in the Sugar Development Fund (SDF) created under the SDF Act 1982. The Fund has benefited the domestic industry by providing loans at concessional rates to sugar factories for modernization and expansion of capacities, rehabilitation development of sugarcane, providing grants for industrial research etc.

Problems of Sugar Industry

1. Problem of mounting losses. Sugarcane prices have been increasing over the years as the costs of production have been rising on the one hand, and on the other hand, the government feels that a remunerative price policy is a must for growers so that the incentive to grow more remains. Since cane prices account for as much as 60 per cent of the cost of producing sugar this, in turn, implies that the cost of producing sugar has been increasing year after years. However, the realizations from the sale of sugar are not rising adequately to meet these increasing costs resulting in heavy losses to sugar units. Naturally, the arrears of sugarcane due to farmers are rising.
2. Fixation of high sugarcane prices by the State governments.
The pricing of sugarcane is affected by a number of factors, the most important being the Statutory Minimum Price (SMP) and the State Advised Price (SAP). SMP is the price for sugarcane fixed by the Central government on the basis of cost of production of sugarcane. SAP is the price fixed by the State government taking into account the specific recoveries and conditions in that particular State. Sugarcane pricing has become a highly politicized issue and it has been observed that the basis of fixing SAP is quite arbitrary and has no bearing with the increase in the cost of production. As a result, the difference between SAP and SMP has been growing.

3. The question of minimum economic size. The minimum economic size, as it exists in India, is 2,500 tonnes of cane crushed per day. This is much less than the minimum economic size in other countries. For instance, in Thailand the average plant size is of 10,000 against the average of 1,400 in this country. According to some experts, the sheer size makes us lose out on the economies of scale. Also, the small MEs makes efficient use of by-products impossible.

4. Old machinery. Like jute and cotton textiles, some sugar factories also require replacement of old machinery and modernization of production techniques. The need is particularly great for the sugar factories located in U.P. and Bihar.

5. Low sugar recovery. The sugar recovery from the canes, as also the yield of cane crop, has been stagnant for a long time for want of any major breakthrough in breeding better varieties of sugarcane. The average recovery extraction) rate for the Indian sugar mills is just 9.5 to 10 per cent, against 13 to 14 per cent in some other sugar producing countries.

6. Failure to follow a consistent policy. The government has not followed a consistent long-term policy for sugar. It has varied between complete control, partial controls and total decontrol. In 1967-68, the sugar factories were required to supply 60 per cent of output to government at ‘levy’ or control prices while there maining output could be sold in the market at
market price. The proportion of levy sugar was later raised to 70 per cent. The Janata government removed all controls in 1978 but with the return of the Congress government to power, partial controls with dual pricing were again imposed. Presently, the sugar producers are required to supply 10 per cent in the form of ‘levy’ sugar while the remaining 90 per cent is the free sale quota.

7.5.2 Textile Industries

Textile industry is the largest industry of modern India. It contributes about 4.0 per cent of GDP, 14 per cent of total industrial output and provides employment to over 35 million people. Together with allied agriculture sector, it provides employment to over 82 million people. The contribution of this industry to export earnings of the country is about 13.5 per cent. It is the only industry which is self-reliant, from raw material to the highest value added products, viz., garments/made-ups. The first cotton mill was set up in Kolkata in 1818. However, the industry made a real beginning in 1854 when a cotton mill was set up in Mumbai. In fact, the industry got localized in Mumbai and Ahmedabad as would be clear from the fact that in 1911 Mumbai City had 33 per cent of the total number of mills and provided employment to 45 per cent of the total workers of the industry. Ahmedabad had 19 per cent of the mills and provided employment to 13.6 per cent of the workers. Outside Mumbai City, some mills were located in Sholapur, Baroda and other minor local centres in Mumbai State. In the United Provinces (Uttar Pradesh), Kanpur had 5 large mills and dominated the industry of U.P. In the post-Independence period, important centres of this industry have been Mumbai, Ahmedabad, Sholapur, Kanpur, Kolkata, Indore and Coimbatore. India’s textile industry continues to be predominantly cotton based, more than 56 per cent of fabric consumption in the country being accounted for by cotton (as against the world average of 46 per cent).

Expansion of the Textile Industry

There are four sectors in the textile industry – mill sector, power loom sector, handloom sector and hosiery. The latter three are jointly considered under the heading ‘decentralized sector’. Over the years, the government has
granted many concessions and incentives to the decentralized sector with the result that the share of this sector in total production has increased considerably. For example, while the share of the mill sector in total fabric production was 76 percent in 1950-51, it fell to 38 per cent in 1980-81 and further to 0.8 per cent in 2008-09. The share of the decentralized sector correspondingly rose from 24 per cent in 1950-51 to 99.2 per cent in 2008-09. Of the total output of 54,966 million square metres of textiles in 2008-09, the share of the mill sector was only 1.796 million square metres – the rest 53,170 million square metres being contributed by the decentralized sector.

Of the three sub-sectors – handlooms, powerlooms and hosiery – in the decentralised sector, it is the powerlooms sub sector that has grown at a faster pace. For instance, in 2008-09, the share of powerlooms in total textile production was as large as 63.1 per cent while hosiery contributed 22.0 per cent and handloom 12.1 per cent. There are many reasons for the fast development of the powerloom sub-sector: (i) government’s favourable policies on synthetic fabric industry; (ii) ability of this sub-sector to introduce flexibility in the product mix in line with the market situation; (iii) low labour costs achieved indirectly through the flexible use of labour itself resulting in lower cost of production, and providing and edge in the market; and (iv) increase in exports from the powerloom sub-sector.

With the aim of developing the four sectors of the industry viz., mills, powerlooms, hosiery and handlooms in an integrated manner, the government announced a new Textile Policy in June 1985. The main objective of this policy was to enable the industry to increase production of cloth of good quality at reasonable prices for the vast population of the country as well as for export purposes. A Textile Modernisation Fund of Rs.750 crore was created in 1986 to meet the modernization requirements of the textile industry. A Textiles Workers’ Rehabilitation Fund was set up to provide interim relief to workers rendered unemployed as a consequence of permanent closure of the textile units. Another measure of significant importance has been the delicensing of the textile industry as per the Textile (Development and Regulation) Order 1993. Under the new policy, prior approval of the
government is not necessary to set up textile units including powerlooms. The technology Upgradation Fund Scheme (TUFS) was launched in 1999 to enable textile units to take up modernization projects, by providing an interest subsidy on borrowings. Under TUFS, loans worth Rs.66,284 crore were disbursed to 25,777 applicants upto June 30, 2009. National Textile Policy 2000 targeted increase in textile and apparel exports form $11 billion to $50 billion by 2010 with the share of garments at $25 billion. Scheme for Integrated Textile Parks (SITP) was launched in 2005. Under this scheme, 40 integrated textile parks of international standards, covering weaving, knitting, processing and garmenting sectors with project proposals worth Rs.4, 149 crore have been sanctioned.

**Problems of Textile Industry**

1. **Availability of raw materials.** The Indian textile industry continues to be predominantly cotton based. This would be clear from the fact that cotton accounts for more than 73 per cent of the total fibre consumption in the spinning mills and 56 per cent of the total fibre consumption in the textile sector. Naturally in those years when the production of raw cotton in small, the cotton textile industry faces a serious problem. The target of raw cotton was kept at 7 million bales in the Third Plan but the achievement was merely 4.9 million bales. There were extreme shortfalls in some other plans as well. Such shortfalls in the production of raw cotton as compared to the targets affected the expansion programmes of the textile industry adversely. However, things have now changed. From period of low level of output and shortages, raw cotton has now reached an era of self-sufficiency with production touching the level of 23.2 million bales in 2008-09. The cause for concern now is the fluctuating and highly volatile prices of cotton month after month. Such large fluctuations adversely affect the decentralized sector and handloom weavers in particulars.

2. **Poor quality and low productivity of cotton.** Productivity of cotton in India is very low. In fact, cotton yield is only around half of the world average (in comparison with China, the productivity is just one-third). Not only this. Cotton cultivation is done in India by small farmers with very small farms.
and with improper technology and methodology. Outdated farm practices and poor maintenance of the market yards have earned Indian cotton the label of the world’s most contaminated cotton. This poor quality of cotton is creating difficulties for the spinning industry.

3. **Outdated plant and machinery.** Since the cotton textile industry is fairly old in India and a number of mills were set up long back, the machinery and equipment have grown old and outdated and need fast replacement. Production with the help of such outdated machinery results in higher costs and poor quality of product. According to a study by Doraisamy, out of 35 million spindles installed in the country, as many as 9 million need to be scrapped while another 16 million need modernization of varying degrees.

4. **Fiscal structure skewed against modern, integrated mills.** The fiscal structure in India has been biased against the modern, integrated mills with the result that the organised textile industry has not been able to attract much investment in modernization in the last three – four decades. Both in weaving and processing we have small and tiny units dominating the sector with outmoded technology and sub-optimal scales. In the process of trying to protect what should be marginal segments of an expanding industry in which India traditionally has had competitive advantage, fiscal policy has been killing the industry itself. The net result is that India is left without domestic production of quality textiles needed by the largest and most lucrative segments of the garment trade.

5. **Interest burden and NPAs.** With steady erosion in their profits, most mills find it difficult to repay their loans. Most of these loans date back to early 1990s when interest rates ranged from 16 to 18 per cent. Today, the textile industry accounts for a significant portion of the NPAs (non-performing assets) of the banking sector in the country (in fact, it has the dubious distinction of having made the maximum contribution to the NPAs of the banking sectors). For a large number of technically viable mills, the pressure of unbearable interest burden has been the limiting factor to growth (expansion and modernization) and even to survival.
6. Labour problems. The cotton textile industry has been faced with frequent labour problems. While some problems of labour are genuine it is no doubt true that the cotton textile mills have become the playground for personal rivalries and the testing ground for some political groups. Protests from labour have also come in way of modernization of textile mills due to fear of displacement and unemployment. For instance, according to one estimate, a single worker can oversee 48 automatic looms while he can manage only 6 non-automatic looms. The problem is aggravated by the fact that due to stagnant demand conditions, there is little possibility of the displaced labour being employed elsewhere in the sector.

7. Eroding cost competitiveness. India suffers from a competitive disadvantage vis-à-vis its competitors like China, Pakistan and Taiwan. For example, compared with China and Pakistan, Indian salaries and wages are higher by 30 to 60 pr cent. It is also estimated that Indian spinners pay 100-150 per cent more than their competitors for their power, making power cost 12 per cent of the production cost as against 5-7 per cent of the competition.

8. Dismantling of MFA and India’s export prospects. Since January 1, 1974 the textile and clothing industry came to be governed by MFA (multi-fibre arrangement). The MFA handed countrywide quotas for exports of textiles. India had bilateral arrangement under MFA with USA, Canada, Australia, countries of the European Union, etc. More than 70 per cent of India’s clothing exports were to quota countries of USA and EU. However, in accordance with the Agreement of Textiles and Clothing (ATC), 1995 (which is a part of WTO agreements), the MFA was dismantled with effect from January 1, 2005. This opened up the textile industry to free competition at the international level from January 1, 2005 for the first time in 30 years. There was a wide consensus among many economists that China and India will gain from this. Garment shops set up in small countries to take advantage of quotas will die; India and China – with their investment capacity, cotton and synthetic fibres, and economies of scale – will sweep the board. Within one year of the MFA regime coming to an end, Indian textile exports grew at a rate of 22 per cent. However, Indian textiles and clothing exports faced many ups
and downs after that, initially due to appreciation of Indian Rupee in 2007-08 and subsequently on account of global meltdown. Moreover, the performance of India’s textile continues to lag substantially behind that of China in terms of rate of growth of exports and share in world textile exports. While China has created huge capacities and capitalized on economics of scale, India has an incredibly fragmented industry which is simply not geared to meet the challenges of a rapidly changing global industry. There are hundreds of thousands of powerloom units producing most of the fabrics in the country with the share of the organized mill industry being negligible. How can this miniscule mill sector pull up the entire industry? It is also to be noted that while China is moving aggressively towards modernization and upgradation and pumping in large sums of money in building up its textiles and clothing industry, the Indian industry has shown complacency and distinct lack of enterprise. China’s industry also has a cost advantage and better infrastructure. Therefore, many experts have argued that India will lose out the race to China.

**Repeal of Cotton Ginning and Pressing Factories Act-1925**

1. The Cotton Ginning and Pressing factories Act, 1925 enacted on the 8th day of August, 1925 provided for periodical filing of returns, maintenance of registers, marking of bales and other rule making powers for the Central and State Governments for the purpose of regulating the ginning and pressing factories.

2. There have been changes in the pattern of processing, marketing and consumption of cotton since the enactment of the act. In the market driven economy needing quality products modernisation of ginning and pressing factories is essential. Further, in the present liberalized industrial scenario the restrictions laid down in the Cotton Ginning and Pressing Factories Act, 1925 are not required any longer and the Cotton control Order, 1986 issued under the Essential Commodities Act, 1955 would cover provisions considered essential to regulate working of ginning and pressing factories in future so long as cotton remains as an essential commodity. Hence it was considered that the said Act be repealed.
3. The repeal will also provide a thrust and incentive to the modernisation efforts in the cotton ginning and pressing sector to ensure quality processing of cotton and charging remunerative price for the service provided for.

7.5.3 Jute Industries

The jute industry is one of the oldest in the country. The first power-driven jute mill was established in the country at rishra near Kolkata in 1859 and since then the industry has made rapid progress. Most of the development of the jute industry has taken place in Bengal. The partition of the country gave a set-back to the industry as major jute growing areas went over to Bangladesh. in fact, only 25 per cent of jute growing areas were left within the country. Therefore, the government made concerted efforts to increase the production of raw jute within the country. As a result, area under jute increased from 6.52 lakh acres in 1947-48 to 1.4 million acres by 1950-51 and the output of raw jute rose from 1.6 million bales to 3.3 million bales over the same period. Production of mesta was also encouraged to be used in mixture with jute. The total area under jute and mesta stood at 0.9 million hectares in 2008-09 and their production stood at 10.4 million bales. The production of jute and mesta textiles increased from 837 thousand tones in 1950-51 to 1,074 thousand tones in 1981-82 and further to 1,369 thousand tones in 2008-09. Globally, India is the largest producer and second largest exporter of jute goods and this sector provides employment to 40 lakh farm families, as well as direct and indirect employment to 4 lakh workers. There are 77 jute mills in the country of which 60 are in West Bengal.

Problems of Jute Industry

1. The emergence of substitutes. Perhaps the most important problem plaguing the jute industry is the demand recession emanating mainly from the emergence of substitutes. Jute bags have been rapidly losing their place to synthetic bags both at home and abroad. At home, the packaging of foodgrains, fertilizers, cement and sugar is increasingly being done in synthetic bags in place of jute bags. For instance, domestic consumption of jute products reached its peak in 2001-02, when it touched 1.5 million reached
its peak in 2001-02, which it touched 1.5 million tones, tones. Subsequently it kept falling in the next five years to 1.1 million tones basically due to the use of synthetic products. In the international market, adoption of new techniques of transportation and discovery of synthetic substitutes has reduced the demand for jute goods.

2. Use of outmodes plant and equipment. A number of jute mills in India are very old and carry out production with obsolete machinery. Such production is uneconomic since costs of production are very high. Naturally these mills require replacement of machinery and modernization. This is all the more necessary because India’s main competitors in international market, Bangladesh and China, have new mills possessing modern machinery and are accordingly posing a serious threat to India’s jute exports. If India is to face this challenge it must scrap and replace the 100 year old looms. With the new sophisticated looms that are now being produced in the developed countries, per man production can be raised as much as 12 times more than the present per man production.

3. Irregular power supply. There has been severe power crisis in west Bengal in a number of years resulting in the imposition of power cuts on jute industry. Naturally the production of jute manufactures suffered seriously in these years.

4. Competition from imports. The government has removed duty on imports of raw jute and jute products from Bangladesh, Pakistan, Nepal and China. With zero duty, imported materials are Rs.250-300 a tone cheaper than the domestic products. This has increased imports of jute creating difficulties for domestic producers.

5. Other Problems. The jute industry is plagued by many other problems also like historically high an-machine ratio, burgeoning wage and input costs, and a mismatch between the installed capacity and actual production.

Saddled with these problems, a number of units in the jute industry have turned sick and many are being run under arrangements reached with
the approval of the BIFR (Board for Industrial and Financial Reconstruction). Faced with this peculiar situation, the jute industry has no resources to undertake large-scale modernization and rehabilitation programmes. In fact, as noted by A.V. Krishnan, the industry is carrying a large surplus labour force of which a substantial number has already reached the retirement age but the industry is finding itself unable to retire them due to paucity of funds.

**The Emerging Opportunities**

The above discussion indeed presents a dismal picture of the jute industry but the future seems to be good. This is on account of the following factors:

1. There is ample scope of diversification and production of value added products. A large area for non-traditional jute items, jute decorative and other jute specialties (like tea bags, jute reinforced plastic, geo-textiles, decorative including furnishing, soft luggage, shopping bags, carpets and matting, apparels, blankets and non-woven's) remains to be explored. This can open upon tremendous possibilities for expansion of demand for jute goods in future. The advantages of the new and value added products have generated considerable interest in the commercial use of jute on a large scale. Krishnan notes that the textile manufacturers, particularly in the South, are directing their attention now towards cotton-jute blended yarn due to high cost of cotton yarn for some uses. In years to come, the South might well emerge as the largest manufacturing base for value added jute products in the country.

2. The development of the market for new value-added jute products is an excellent opportunity for the industry to direct its attention, penetrate and create new export markets with brand name ‘Indian Jute’. Whatever efforts at diversification have been undertaken so far, have reaped rich dividends as would be clear from the fact that the share of diversified products in total jute exports has increased considerably over the years. Moreover, notes Krishnan, as jute fibre is not only environment friendly and fire retardant but also bio-degradable with capacity to promote safety
standards, some top car manufacturers in Germany have plants to use it. Jute is also being used increasingly as a soil saver. This can help jute in recapturing the export markets.

Keeping in view the immense possibilities for diversified products, the government set up the National Centre for Jute Diversification (NCJD) in 1995 as a body under the Ministry of Textiles. NCJD is playing an important role in the commercialization of technologies for the manufacture of jute-diversified products and creating awareness about the uses of this natural fibre in non-conventional application. The government formulated the first ever National Jute Policy 2005 with an objective of increasing production, improving quality, ensuring remunerative prices to the jute farmers and enhancing per hectare yield. On June 2, 2006 the government approved the implementation of the Jute Technology Mission (JTM) at an estimated cost of Rs.355.55 crore. JTM comprises four mini-mission: (1) Mini-mission I – Strengthening of Research and Development; (2) Mini-mission II – transfer of technology; (3) Mini-mission III – development of marketing infrastructure; and (4) Mini-mission IV – modernization / upgradation of technology of jute sector, and initiation of activities for promotion of jute diversified products.\textsuperscript{10}

7.5.4 Cement Industry

Manufacture of cement was first started in Madras in 1904. A real beginning was, however, made in 192-13 when three companies were formed. By the time the plans started, there were 21 factories with an annual capacity of 3.28 million tones. The government had a complete control on the production, distribution and price of cement and this dampened the growth of the cement industry. In 1977, the government announced that 12 per cent post-tax return on net worth was fair enough and retention prices would be fixed to ensure it. This provided an initial momentum for investment in the industry. The real impetus was provided when partial decontrol was announced in 1982. Under this policy, all existing cement units were required to give up to 66.6 per cent of their installed capacity as levy at controlled price (for new units and sick units the requirement was kept at 50 per cent of installed capacity). The balance production was treated as ‘non-levy cement’
and was allowed to be sold in the market at the ruling prices. The most important objective of the new policy of partial decontrol was to eliminate black marketing and bring down the price in the free market. The government intended to fully dismantle the controls and, keeping this end in view, liquidated the levy system in a phased manner. The 1989 Budget announced total decontrol of cement. Thus, from a phase of total controls, the cement industry passed through a phase of total decontrol in March 1989. The cement industry was delicensed in 1991. The industry responded favorably to the government initiatives and the production capacity increased from 29 million tones in 1982 to 113 million tones in 1999-2000 – an expansion of 84 million tones in just 18 years. At present, there are 159 large cement plants in the country with an installed capacity of 163.45 million tones per annum. Besides, there are about 332 mini-cement plants with an estimated installed capacity of 11.10 million tones per annum. The production of cement was 21 million tones in 1981-82. This rose to 45.8 million tones in 1989-90 and 181.4 million tones in 2008-09 – a substantial expansion by all means. Now India is the second largest producer of cement in the world after China. However, it is distant second.

An event of significant importance from the long-term point of view has been the process of consolidation and ‘mergers and acquisitions’ witnessed in the cement industry during recent period (particularly since 1997-98). The leaders are now finding it economical to acquire an existing under utilized/il-managed company rather than to float a new company.

**Mini Cement Plants**

In order to exploit smaller deposits of limestones scattered all over the country and in remote and inaccessible areas, the government announced guidelines for the setting up of mini cement plants (having a capacity ranging between 50 tonnes and 200 tonnes a day). The major advantages of mini cement plants are increased employment opportunities in rural areas, dispersal of industrial activity and reducing strain on the transportation infrastructure. As stated above, there are about 332 mini cement plants in the country with an aggregate capacity of about 11.10 million tones. Most of the
mini cement plants in India are located in Andhra Pradesh, Karnataka, Madhya Pradesh, Gujarat and Rajasthan.

The Regional Distribution

Capacity-wise, the western region dominates the rest of the country with 40.5 per cent followed by the southern region (28.9 per cent), northern region (20.6 per cent) and lastly, the eastern region contributing 10 per cent to the total capacity. Since the industry is ‘location-specific’, it has resulted in formation of clusters of companies at suitable limestone reserves. At present, there are seven clusters manufacturing a total of 55.3 per cent of the total production while the remaining plants, which are scattered, manufacture the remaining 44.7 per cent. As emphasized by N. Srinivasan, addition to cement capacity in clusters in coming years should be so planned that they match the growing demand of the States in the region concerned. A quantum jump in addition to capacity in a cluster could lead to market distortions. “While it is important to assess ‘what’ capacity is to be created it is more important to know ‘where’ to create it.”

Problems of Cement Industry

The above brief discussion shows that the cement scenario has undergone a sea change – from that of shortages and premiums just a few years ago to that of surplus production now. However, this surplus production has brought in its wake new problems like cut-throat competition, unremunerative prices and deepening financial crisis. The main problems of the cement industry are outlined below.

1. Burden of high tariffs. The cement industry is facing high tariffs – high excise duty, sales tax, royalty on limestone and coal etc. The excise duty on cement has been steadily rising. According to the development council for cement industry, the total levies on cement per tone amount to as much as Rs.66.8 per tone. The effective burden on cement amounts to as much as Rs.35 per cent of the retail price of cement and 47 per cent of the ex-factory price excluding excise, sales tax and freight. This is much higher as compared
to the burden in other countries making the Indian cement industry internationally uncompetitive.

2. Poor quality of coal. Coal is an important input in the cement industry and accounts for 15 to 20 per cent of cash expenses in the manufacture of cement. On an average 250 kg. of coal is required to produce one tone of cement. Coal in India has to be moved over long distances of 1,000 to 1,200 km to some plants in North, South and West India. There is a severe shortage of coal for the cement industry. Moreover, with the capacity addition in the cement industry projected for the Eleventh Plan, the annual requirement of coal would substantially go up from the current level of 28.68 million tones to 57.97 million tones by the end of the Eleventh Plan. The quality of coal supplied to cement units is also highly unsatisfactory as only D, E and F grades of coal are supplied to these units. The ash content in Indian coal is very high and this restricts production. To meet the twin problems of (i) shortage of coal and (ii) poor quality of coal (due to high ash content), the emphasis on imports of coal is now increasing. However, this option, in addition to involving expenditure of foreign exchange resources, also places those cement plants at a disadvantage which are located far from ports as they have to incur extra costs for double handling and freight.

3. The power shortage. Power is another important requirement and alongwith coal forms 40 per cent of the total cost. Power cuts, unsteady and inadequate power supply from State Electricity Boards have created serious problems for cement units. This is all the more so as the production of cement is a continuous process requiring uninterrupted power supply to operate efficiently. To cope with the problem for cement units. This is all the more so as the production of cement is a continuous process requiring uninterrupted power supply to operate efficiently. To cope with the problem of power shortage, cement companies have been obliged to make heavy investments in captive power generation and also auxiliary generation in wind farms, particularly in plants located in coastal areas.

4. Transportation problem. Transportation costs make up around 20 per cent of the total cement price. The industry predominately depends on
railways, but due to shortage of wagons, cement dispatches by rail have declined over the years. The Indian Railways has introduced an ‘Own Your Wagon (OYW) Scheme’ wherein cement companies have been allowed to purchase wagons. This has led to some marginal improvement and has enabled the cement companies to tide over distribution bottlenecks. However, the increased distribution cost is forcing companies to pass the costs to the customers.

5. Demand constraints. Till the year 1990-91, the demand for cement was mainly dependent on government spending as the government with a 40 per cent off take was the single largest consumer of cement. However, due to financial constraints, the government was forced to cut down on a wide range of developmental activities. This resulted in a demand constraint. In recent years, the policy of liberalisation and the opening up of the infrastructure sector to the private sector and the foreign sector, have given a push to the demand for cement. NHDP (National Highway Development Programme) alone has been estimated to generate demand for 10 million tones of cement. The growth of the housing sector, which has been assisted by lower interest rates, and a favorable tax treatment of home loans, has also helped assist cement demand. As a consequence, massive investments in the setting up of new units and expansion of existing units in the cement industry have taken place in recent years pushing up the production capacity and actual production level of cement considerably.

6. Underutilization of capacity.

Underutilisation of capacity is a recurrent feature of cement industry. Underutilisation is particularly marked in the cement plants located in the Eastern region. One of the main factors accounting for low capacity utilization in this region has been the demand constraint. Because of underutilization of capacity, the cement plants are not able to reap the benefits of economies of scale. Thus, they are not able to minimize costs of production at their prevailing levels of production. They also waste scarce resources like power, skills, and so on which hurt the bottomline in the long run.
7. Cement Technology

For a long period of time, many cement plants have used the uneconomical wet process technology. Due to the high labour and maintenance costs and smaller size, these plants had a high cost of production. Their obsolete technology also resulted in a lot of wastage of coal and electricity. In recent years, there has been a gradual shift from wet to modern, fuel efficient dry process plants. Most of the new plants have adopted state-of-the-art technology and have been implementing modernization programmes to improve the performance of existing plants. This has resulted in better capacity utilization, higher productivity, reduced energy consumption and better quality of cement (comparable to the best in the world).

The Eleventh Five Year Plan targets a capacity addition of 118 million tones during the Plan period (2007-12) This would require a total investment of rs.52,400 crore.19

NOTES


6. Rohit Viswanath, op.cit., pp.50-51


Steel industry reforms - particularly in 1991 and 1992 - have led to strong and sustainable growth in India’s steel industry.

Since its independence, India has experienced steady growth in the steel industry, thanks in part to the successive governments that have supported the industry and pushed for its robust development.

Further illustrating this plan is the fact that a number of steel plants were established in India, with technological assistance and investments by foreign countries.

In 1991, a substantial number of economic reforms were introduced by the Indian government. These reforms boosted the development process of a number of industries - the steel industry in India in particular - which has subsequently developed quite rapidly.

The 1991 reforms allowed for no licenses to be required for capacity creation, except for some locations. Also, once India’s steel industry was moved from the listing of the industries that were reserved exclusively for the public sector, huge foreign investments were made in this industry.

Yet another reform for India’s steel industry came in 1992, when every type of control over the pricing and distribution system was removed, making the modern Indian Steel Industry extremely efficient, as well as competitive.
Additionally, numbers of other government measures have stimulated the growth of the steel industry, coming in the form of an unrestricted external trade, low import duties, and an easy tax structure.

India continually posts phenomenal growth records in steel production. In 1992, India produced 14.33 million tones of finished carbon steels and 1.59 million tones of pig iron. Furthermore, the steel production capacity of the country has increased rapidly since 1991 - in 2008, India produced nearly 46.575 million tones of finished steels and 4.393 million tones of pig iron.

Both primary and secondary producers contributed their share to this phenomenal development, while these increases have pushed up the demand for finished steel at a very stable rate.

In 1992, the total consumption of finished steel was 14.84 million tones. In 2008, the total amount of domestic steel consumption was 43.925 million tones. With the increased demand in the national market, a huge part of the international market is also served by this industry. Today, India is in seventh position among all the crude steel producing countries.

The following are the premier steel plants operating in India:

- Salem Steel Plant at Tamil Nadu
- Bhilai Steel Plant at Chattisgarh
- Durgapur Steel Plant at West Bengal
- Alloy Steel Plants at West Bengal
- Visvesvaraya Iron and Steel Plant in Karnataka
- Rourkela Steel Plant at Orissa
- Bokaro Steel Plant at Jharkhand

The earliest successful attempt to manufacture iron and steel by modern methods was made in the country at Barakar in 1875 for the production of pig iron. This was taken over by the Bengal Iron Company in 1889. However, the first effort at large scale production was made when Tata Iron & Steel Company (TISCO) was set up in Jamshedpur in 1907. The Indian Iron and Steel Company (IISCO) were set up at Burnpur in 1919. The first unit
in the public sector, now known as the Visveswaraya Iron and Steel Works Ltd., started functioning at Bhadravati in 1923.

**Progress in the Post-Independence Period**

After Independence, special attention was paid to the development of the iron and steel industry. The Second Plan which aimed at laying strong foundations of industrial development naturally gave top priority to the development of the iron and steel industry. This would be clear from the fact that the investment on steel programme in the Second Plan alone was about 2.5 times the combined new investment undertaken by the public and private sector on the industrial programmes in the First Plan. Three steel plants of one million tones ingot capacity each were set up in the public sector at Bhilai, Rourkela and Durgapur. Besides, expansion programme to double the capacity of the two private sector plants, namely, TISCO and IISCO to 2 million tones and 1 million tones respectively were also taken into hand.

The three steel plants set up in the public sector came into operation in stages between 1959 and 1962. The Third Plan placed emphasis on expansion of these plants and the setting up on a new steel works at Bokaro. The Fourth Plan steel programme was based on the maximum utilization of steel capacity and preparation of plans to set up three new steel plants at Salem in Tamil Nadu, Vijaynagar in Karnataka and Visakhapatnam in Andhra Pradesh. The Bokaro Steel Plan was commissioned on February 26, 1978. With this the total installed ingot capacity which stood at 8.9 million tones on March 31, 1974, increased to 11.6 million tones as on March 31, 1980. The government also took over the management of IISCO in 1972 and acquired its ownership in 1976 to improve its working.

Prior to 1973, of the four steel plants in the public sector, the plants at Bhilai, Rourkela and Durgapur were owned and managed by the Hindustan steel Limited (HSL) and the Bokaro Steel Plant by Bokaro Steel Limited (BSL). In 1973, the government set up the Steel Authority of India Ltd. (SAIL). HSL and BSL became the wholly owned subsidiaries of SAIL. The management of IISCO is also under SAIL.

Visvesvaraya Iron and Steel Ltd.
was taken over by SAIL in August 1989. Thus SAIL is now the main integrated steel company. Vishakhapatam Steel Plant of Rashtriya Ispat Nigam Ltd. (RINL), was commissioned in July 1992. It is the best laid out steel plant in the country with a capacity of three million tones. In the private sector, Tata Iron and steel Company (TISCO) is the first integrated steel plant. It is located at Jamshedpur. Other important players in the private sector are Essar, Mukand (having the biggest mini steel plant in the country), Lloyds, Jindal, Nippon Denro Ispat Ltd., Mahindra Ugine Steel Company Ltd., FACOR, Mardia Steel Ltd., etc. India is now the fifth largest crude steel producing country in the world. This sector represents around Rs.90,000 crore of capital and directly provided employment to over five lakh people.

**Liberalisation of Steel Policy**

Iron and steel industry was reserved for the public sector in the 1956 Industrial Policy Resolution which had stated that while existing units in the private sector would be allowed to continue and expand, new units will be set up in the public sector only. However, due to acute shortage of steel in 1960s and 1970s and increase in the demand of steel by the re-rolling and engineering industries, the government liberalised the steel policy. The process of liberalisation initiated in 1983 has been progressively extended. In 1986 private sector was allowed to produce steel using EAF (Electric Arc Furnace) process. Small blast furnaces were allowed only if they used optimum energy. In February 1988, expansion of units was permitted within n overall capacity ceiling of upto 250,000 tonnes per annum. The enhancement of capacity upto 150 per cent of the existing licensed capacity was allowed within the overall ceiling limit. However, certain conditions were imposed.

To liberalise and rationalize the manufacture of steel and steel-based products, remove unnecessary restrictions, and promote minimum economic scales of production, the government issued a new set of guidelines on June 6, 1990. Under the new policy, the private sector was allowed to set up steel plants with a capacity of up to one million tones per annum and, for this purpose, they were allowed the freedom to choose between the electric arc furnace and blast furnace processes. Subsequent to the announcement of the
substantial liberalisation measures in July 1991, the government removed the iron and steel industry from the list of industries reserved for the public sector and also exempted it from the provision of compulsory licensing. The government also abolished price and distribution controls on iron and steel manufactured by integrated steel plants with effect from January 16, 1992. The Freight Equalization Scheme was also withdrawn. The iron and steel sector is now almost entirely open with no sectoral reservations, with no licensing, pricing, distribution and import controls. This is a radical departure for an industry which has experienced near exclusive public sector monopoly, canalized imports, protective import tariffs and government regulated domestic prices.

**Production, Consumption and Exports of Steel**

The production of finished steel (including secondary producers) rose from 1.04 million tonnes in 1950-51 to 6.82 million tonnes in 1980-81 and 57.2 million tonnes in 2008-09. The production of pig iron was 5.3 million tonnes in 2007-08 and 6.2 million tonnes in 2008-09. The consumption of finished steel in 2005-06 was 41.4 million tonnes which rose to 52.4 million tonnes in 2008-09 was 5.08 million tonnes and 4.44 million tonnes respectively.

**Problems of Iron and Steel Industry**

The development and expansion of the industrialization programmes of a country depends crucially on the development and expansion of the iron and steel industry. It is mainly due to the emphasis laid on the development of this industry in the post-Independence period and the progress registered by it that India’s industrial base has now become strong enough to meet the requirements of rapidly expanding engineering goods industries, machine building industries, machine tools industries and a number of other capital goods, intermediate goods and consumer goods industries. Naturally, a setback in the iron and steel industry due to any reasons whatsoever has to be viewed with concern since it has adverse repercussions on the numerous industries associated with it. Let us now consider some of the problems that the steel industry has had to face:
1. Rise in input costs. Raw materials such as iron ore and coal constitute on average 70 per cent of the total costs of steel companies. In 2005-06, prices of iron ore costs of steel companies. In 2005-06, prices of iron ore shot up by 71 per cent and coal by 50 per cent. As a result, a third of the large steel players’ profits were wiped out. In 2008-09, the Indian iron and steel industry was hit hard by the spiraling cost of imported coking coal/met coke.

2. Shortage of coal and power. The steel plants frequently face problems in obtaining adequate quantities of the desired quality of coking coal. This has often forced the steel plants to restrict the pushing of coke ovens. In addition, Indian coking coal has a high ash content mainly because of the sedimentary nature of their origin. In the 1950s the steel plants were designed for using coal with 17 per cent ash content. Over the years, as mining proceeded deeper and to lower seams, the ash content increased to 25 per cent. Every one per cent increase in ash brings down the production of blast furnaces by 2-3 per cent. In addition, coke rate goes up and quality of the product goes down. To keep the ash content of the blend at around 15 per cent, the dependence on imported coal has to be increased which is obtained at a considerably higher cost as compared with domestic coal (while price of domestic coal is in the range of $40-45 per tone, that of imported coal is in the range of $70 per tonne). Power shortages also affect the functioning of steel plants adversely. For instance, inadequate power availability from Damodar Valley Corporation (DVC) has adversely affected the performance of SAIL.

3. Technologically obsolescence. Some public sector steel plants are today victims of technological obsolescence. In respect of blast furnace productivity, consumption of coke and tap-to-tap time in convertors, most of the integrated steel plants are half as efficient as the steel plants in the rest of the world. For example, in terms of hot metal output per cubic metre of working volume per day, the performance has been 1.11-1.33 for Bokaro, 1.21 – 1.26 for Vishakhapatnam Steel Plan and 1.87 for the G-furnace (new furnace) for TISCO while the same has been in the order 2.3-2.8 on a typical
Japanese Furnace. Similarly, the tap-to-tap time in the blast furnace in the TISCO plant has been in the range of 70-136 minutes while the same is 20-30 minutes in a Japanese firm. Not only in material value productivity, even in terms of labour productivity, has Indian steel industry lagged considerably behind the developed countries. While labour productivity in Indian steel industry ranges between 39 tonnes per man year to 228 tonnes per man year, it ranges between 300-500 tonnes per man year in the steel industry of industrialized countries. It is also due to technological obsolescence that energy consumption in Indian steel mills still continues to be considerably higher than in steel mills of the developed countries. For instance, while energy constitutes about 20 per cent or one-fifth of the total cost of steel making in the latter, it is as high as 33 per cent (almost one-third) of the total cost of steel making in India.

4. Inefficient management. The management and control of steel plants leaves much to be desired. The top management often comprises non-specialised, non-technical people who are often unequal to the task of providing the requisite managerial competence in the complex and capital intensive projects as the steel plants, in fact, are. The management also works under severe constraints like undue political interference, frequent labour disputes etc.

5. The demand constraint. The steel industry has faced rough time during a number of recent years due to a slump in demand following reduction in government’s planned expenditure, lack of investment in the housing and infrastructure sectors, and additional capacity creation based on assumed growth in consumption which did not materialize. As a result, there was huge piling up of inventories resulting in downward pressure on prices and deep erosion in the profitability of the steel producers. The latest instance of this was the latter half of the year 2008-09 when the domestic demand for steel was adversely impacted by economic slowdown and, in particular, by slackening demand in some of its leading end-use segments. As a result, domestic steel prices started declining from September 2008 and the pace of growth of production slowed down considerably.
6. **Menace of dumping.** Already in distress over the failure of domestic demand to increase, the misery of the Indian steel industry was compounded by the alarming downtrend in international price during the late 1990s. In respect of certain steel products, the decline in prices was as much as 40 to 40 per cent. This led to unhealthy practices like dumping which pulled down domestic prices and eroded the bottom-line of the local steel markers. The lower tariff regime in the current era of liberalisation and the unrestricted import of all iron and steel material under the new export-import policy made things worse for the domestic producers of steel. What is more worrying is the fact that seconds and defective grades of steel were dumped into the economy. These were no match to the quality products turned out by the Indian steel mills but spoiled the market of domestic steel markers.

The Eleventh Five Year Plan has listed the problems faced by the steel industry as follows: “depleting iron ore resources, inadequate availability of coal, inadequate sintering and pelletization capacities and poor transport infrastructure for movement of raw materials.” Outlay for the steel sector in the Eleventh Plan has been kept at Rs.37,318 crore.

**Facing the Challenges**

To face the problems mentioned above, the Indian steel industry has adopted a multi-pronged strategy consisting of the following steps;

1. **Control raw materials.** To tackle the problem or rising costs of raw materials, the Indian steel companies are devising strategies to ‘control’ raw materials. For example, companies are acquiring captive iron ore mines to control iron ore supplies. For instance, Jindal South West (JSW) is making efforts to source at least 50 per cent of its iron ore requirements from its captive mines in Karnataka. As for coke, companies are now setting up their own coke oven batteries where they can manufacture it from raw coal.

2. **Intergrate.** India’s companies are also engaged in backward integration to mitigate risks. For instance, Bhushan Steel and Strips buys hot-rolled steel – used to manufacture high-end cold rolled and galvanized steel-
from the market. Now it is setting up a 3 million-tonne hot-rolled steel manufacturing plant in Orissa. Another area of backward integration is power. For example, in 2005-06 JSW commissioned a 100-MW captive power plant in Vijayanagar which helped reduced power costs by nearly 25 per cent.

3. **Engineer the finances.** Steel in capital intensive industry and many companies resort to long-term loans. The recent upturn in the sector enabled many companies to pay off their long-term debts early and in general, interest payments have also come down. Thus, companies are saving through debt restructuring.

4. **Expand.** The massive expenditure on infrastructure development has created extensive opportunities for the steel companies (for example, Phase I of National Highways Development Programme alone led to a demand for 1 million tone of steel). To benefit from these opportunities, companies have started expanding capacities. For example, SAIL has embarked upon a Rs.35,000 crore expansion plan. Similar expansions are being undertaken by Tata Steel (which recently acquired Corus), JSW, Mukand, Bhushan Steel etc.

Since India has significant resources of iron ore and coal, India is an attractive destination for global steel companies such as Posco and Mittal Steel. Therefore, smaller Indian companies can be subject to hostile bids from these global players. To stave off this danger, it is expected that consolidation in India will happen among the domestic players in the near future.

The Government of Indian approved the National Steel Policy (NSP) 2005 in October 2005. The long-term goal of NSP is to ensure that India has a modern and efficient steel industry, capable of standing up to international competition and catering to the growing domestic demand for steel. The NSP envisages a threefold role for the State in the now deregulated Indian steel industry – (1) as a catalyst for “triggering” domestic demand, (2) as a facilitatory to do away with supply side constraints, including the finance constraint, and (3) as a co-coordinator to “manage” the eternal environment
effectively, However, as correctly pointed out by Economic and Political Weekly, success on all these fronts is suspect. For example, it is not clear how the government can boost the domestic demand for steel with the FRBM (Fiscal Responsibility and Budget Management) Act in place and neo-liberal ideology dictating fiscal conservatism. As far as doing away with supply side constraints is concerned, this would imply heavy financial assistance and commitments to private sector capitalists who decide to invest (particularly due to the capital intensive nature of the steel industry). This would put pressure on the resources of financial institutions and push up their non-performing assets (this is what happened in the first half of 1990s when initial deregulation of the steel industry had led to a surge of investments in the sector). As far as “managing” the external environment is concerned, the NSP has no strategy in place. It has nothing concrete to say about how India plans to deal with steel-industry related subsidies, dumping, and the filing of anti-dumping and countervailing duty cases. Overall the NSP simply lacks substance.

7.5.6 Oil & Gas Industry in India\textsuperscript{22}

The origin of oil & gas industry in India can be traced back to 1867 when oil was struck at Makum near Margherita in Assam. At the time of Independence in 1947, the Oil & Gas industry was controlled by international

\textsuperscript{22} www.petroleum.nic.com.
companies. India’s domestic oil production was just 250,000 tonnes per annum and the entire production was from one state - Assam.

The foundation of the Oil & Gas Industry in India was laid by the Industrial Policy Resolution, 1954, when the government announced that petroleum would be the core sector industry. In pursuance of the Industrial Policy Resolution, 1954, Government-owned National Oil Companies ONGC (Oil & Natural Gas Commission), IOC (Indian Oil Corporation), and OIL (Oil India Ltd.) were formed. ONGC was formed as a Directorate in 1955, and became a Commission in 1956. In 1958, Indian Refineries Ltd, a government company was set up. In 1959, for marketing of petroleum products, the government set up another company called Indian Refineries Ltd. In 1964, Indian Refineries Ltd was merged with Indian Oil Company Ltd. to form Indian Oil Corporation Ltd.

During 1960s, a number of oil and gas-bearing structures were discovered by ONGC in Gujarat and Assam. Discovery of oil in significant quantities in Bombay High in February, 1974 opened up new avenues of oil exploration in offshore areas. During 1970s and till mid 1980s exploratory efforts by ONGC and OIL India yielded discoveries of oil and gas in a number of structures in Bassein, Tapti, Krishna-Godavari-Cauvery basins, Cachar (Assam), Nagaland, and Tripura. In 1984-85, India achieved a self-sufficiency level of 70% in petroleum products.

In 1984, Gas Authority of India Ltd. (GAIL) was set up to look after transportation, processing and marketing of natural gas and natural gas liquids. GAIL has been instrumental in the laying of a 1700 km-long gas pipeline (HBJ pipeline) from Hazira in Gujarat to Jagdishpur in Uttar Pradesh, passing through Rajasthan and Madhya Pradesh.

After Independence, India also made significant additions to its refining capacity. In the first decade after independence, three coastal refineries were established by multinational oil companies operating in India at that time. These included refineries by Burma Shell, and Esso Stanvac at Mumbai, and by Caltex at Visakhapatnam. Today, there are a total of 18 refineries in the
country comprising 17 in the Public Sector, one in the private sector. The 17 Public sector refineries are located at Guwahati, Barauni, Koyali, Haldia, Mathura, Digboi, Panipat, Vishakapatnam, Chennai, Nagapatinam, Kochi, Bongaigaon, Numaligarh, Mangalore, Tatipaka, and two refineries in Mumbai. The private sector refinery built by Reliance Petroleum Ltd is in Jamnagar. It is the biggest oil refinery in Asia.

By the end of 1980s, the petroleum sector was in the doldrums. Oil production had begun to decline whereas there was a steady increase in consumption and domestic oil production was able to meet only about 35% of the domestic requirement. The situation was further compounded by the resource crunch in early 1990s. The Government had no money for the development of some of the then newly discovered fields (Gandhar, Heera Phase-II and III, Neelam, Ravva, Panna, Mukta, Tapti, Lakwa Phase-II, Geleki, Bombay High Final Development schemes etc. This forced the Government to go for the petroleum sector reforms which had become inevitable if India had to attract funds and technology from abroad into the petroleum sector.

The government in order to increase exploration activity, approved the New Exploration Licensing Policy (NELP) in March 1997 to ensure level playing field in the upstream sector between private and public sector companies in all fiscal, financial and contractual matters. This ensured there was no mandatory state participation through ONGC/OIL nor there was any carried interest of the government.

To meet its growing petroleum demand, India is investing heavily in oil fields abroad. India's state-owned oil firms already have stakes in oil and gas fields in Russia, Sudan, Iraq, Libya, Egypt, Qatar, Ivory Coast, Australia, Vietnam and Myanmar. Oil and Gas Industry has a vital role to play in India's energy security and if India has to sustain its high economic growth rate.
Liberalisation Of Indian Economy Its Impact On Indian Oil & Gas Sector

1. Liberalisation of Indian Economy & Its Impact On Indian Oil & Gas Sector.

2. For four decades following Independence, the Indian economy was under a socialist, dirigiste leash. The laws of demand and supply took a backseat to the diktats of faceless bureaucrats.

3. Unsurprisingly, the economy could only crawl along, plagued by high rates of inflation, unemployment and inefficiency - the consistently meagre rates of growth produced by it coming to be contemptuously termed the "Hindu rate of growth" the world over.

4. The central pillar of the policy was import substitution, the belief that India needed to rely on internal markets for development, not international trade - a belief generated by a mixture of socialism and the experience of colonial exploitation.

5. The problems steadily mounted and in 1991, the economy stood on the verge of collapse due to an acute foreign exchange shortage crisis.

6. In 1991, after the International Monetary Fund (IMF) had bailed out the bankrupt state, the government of P.V. NarasimhaRao and his finance minister Manmohan Singh started breakthrough reforms.

7. The new policies included opening for international trade and investment, deregulation, initiation of privatisation, tax reforms, and inflation-controlling measures.

8. Energy Policy & Regulation

9. Various agencies within Indian government oversee energy policy in India and include the Ministry of Petroleum and Natural Gas, the Ministry of Coal, the Ministry of Non-Conventional Energy Sources, the
Ministry of Environment and Forests, the Department of Atomic Energy, and the Ministry of Power.

10. Under the Ministry of Petroleum and Natural Gas are the Directorate General of Hydrocarbons (DGH) and the Oil Coordination Committee.

11. The DGH was set up in 1993 to oversee petroleum exploration programs, develop plans for the state-owned oil enterprises and private companies, and oversee efficient utilization of gas fields.

12. The Oil Coordination Committee oversees, plans, regulates, and advises on the downstream sector.

13. The Gas Authority of India Limited (GAIL) is responsible for transportation and marketing of natural gas.

14. State-owned companies like the Oil and Natural Gas Corporation (ONGC) and Oil India Limited (OIL), which manage exploration and production activities, and the Indian Oil Corporation (IOC), which secures oil from abroad, also help shape the direction of energy policy.

15. Hydrocarbon Vision 2025

16. Lack of a comprehensive energy policy is a barrier to foreign investment in long-term energy projects in India.

17. To address the absence of a policy, the government released in early 2000 Hydrocarbon Vision 2025, a study whose recommendations may become official policy.

18. The study suggests, among other things, that India revise foreign ownership regulations for refinery operations to allow 100% foreign ownership.

19. The study calls for elimination of government subsidies for petroleum over the course of the next 3-5 years.
20. The government is being encouraged to allow domestic gas prices to float to international levels which would affect the 25% of the gas market that is protected by government price controls.

21. Furthermore, the study set down a goal to supply 90% of India’s petroleum and diesel needs from domestic sources.

22. India suffers from low drilling recovery rates. Recovery rates in Indian fields average only about 30%, well below the world average. The government hopes one of the benefits to opening up the energy industry to foreign companies will be access to better technology which will help improve recovery rates.

23. Wary of a growing reliance on imported oil, the government announced the New Exploration Licensing Policy (NELP) in 1997, which opened the door to involvement by foreign energy companies.

24. Foreign firms were initially hesitant to bid on oil exploration rights, and as a result no bids were received from foreign energy companies in 1999. However, by early 2000 India had awarded 25 oil exploration blocks. The largest contract went to Reliance Industries of India, which together with Niko Resources of Canada, won 12 oil exploration blocks.

25. Additionally, the government is encouraging Indian energy companies to get involved in exploration and production projects in other Asian countries to make them more competitive in the international arena and develop their technical prowess.

26. Indian companies have become active in other oil projects in Asia, Sudan, Australia, and Russia. In early 1999, IOC and ONGC formed a strategic alliance designed to improve the international competitiveness of both firms.

27. Refining & Petrochemicals

29. The India Hydrocarbon Vision 2025 report estimates future refinery demand at 368 million tons by 2025.

30. For India to meet its ambitious refinery expansion goals it will need help from multinationals and private Indian companies.

31. The main focus of a liberalization program that began in the mid-nineties has been greater access to the refinery sector for private companies and a green light for joint ventures with state-run enterprises.

32. One approach has been tax breaks such as granting plants completed by 2003 a five-year tax holiday.

33. Regulatory reform has entered into the picture, allowing foreign firms that invest in excess of $400 million in refinery operations to sell refined products.

34. Natural Gas

35. Natural gas now supplies about 7% of India’s energy. Consumption of natural gas rose from 628 billion cubic feet (bcf) per year in 1995, to 752 bcf in 1999. Power generation, fertilizers, and petrochemicals production are industries that have been turning to natural gas as an energy feedstock. Natural gas will become a bigger part of the energy picture for India, primarily as a way to reduce dependence on foreign oil.
Petrol and Diesel prices deregulated in India

The Government of India has taken a bold decision to deregulate petrol and diesel (partially) prices in India and also come up with a price hike.

As usual the vote bank politicians on the UPA alliance, opposition leaders and the left have voiced their protest. They claim that they are ‘with the people of India’ and whole lot of other crap. Two of the most politically spoiled states in India – The West Bengal and Kerala – have readily jumped on to ‘celebrate’ the situation with a ‘Hartal’ (strike). But do they even know how pampered the people of India already are how much they are misusing one of the most limited natural resources such as petrol (LPG and diesel as well)?

What does deregulation mean?

Decontrolling or deregulating the petrol prices mean that, the government will no longer be subsidizing petrol prices and the prices will be purely linked to the international crude prices. In the case of diesel, though, it will be only partially regulated – the reason being an attempt to avoid sudden spike in inflation.

Why should Petrol cost more?

As all of us know, petrol (or Gasoline) is produced out of crude oil which is a natural resource that’s available in limited quantity. It is a matter of a few years before the crude gets totally exhausted. Although, there have been several crude discoveries in India, we are still dependent on the OPEC
(Oil Producing and Exporting Countries) to import crude and refine it to produce petrol, LPG, diesel, aviation fuel, kerosene etc.

**Petrol production cost**

The crude oil costs $79 a barrel (159 Litres). Since this has to be transported to India via the marine root, there is a shipping cost. Let’s say it’s something like 10%. Since the import duty on crude oil was waived sometime back, let us not count that part. Hence by the time the crude arrives in India, it is already costing something like $85 per 159L.

So the petrol refining calculation goes as follows:

- **Cost of 1 barrel crude:** $85 or Rs. **3910.00** (exchange rate of 46)
- **Quantity of petrol produced** from 1 barrel crude: 72L (45.4%)

Since almost 100% of the crude is refined into some product or other, we can calculate the raw material cost of producing 72L or petrol as 45.4% of the price of crude barrel.

Hence 72L petrol’s material cost alone is 3910 * 45.4 / 100 = Rs. 1775.00

**Raw material cost of 1L of Petrol** = 1775.00 / 72 = @25 rupees

Obviously, the raw materials alone do not contribute to a product. You need electric power, thousands of paid employees, machinery, maintenance etc to finally produce petrol. So finally when it’s of consumable form, it is costing around 30 rupees in the oil refining spot itself.

**Taxes, marketing and distribution cost**

The following are the other additional expense before you can consume the petrol at your favorite gas station:

Excise duty

Education tax
VAT

Distribution and transportation cost

Dealer commission

As I understand, all the above added up comes to around 27 rupees per litre of petrol the majority of the cost is towards excise duty, transportation cost and VAT (Isn’t it a pity you have to spend more petrol or diesel to distribute petrol?)

Essentially, one litre of petrol, by the time it reaches the petrol filling stations, is costing you already Rs. 57/- without any profit added to the petroleum marketing companies. Obviously most of these companies are state run companies and hence cannot afford to reap 100% profit. Let’s turn our back on them and tell them that you can make say 20% profit. And if you add that your 1L of petrol should actually cost you around Rs. 68/-

Now, aren’t you really lucky that it’s available below Rs.60/- even with the latest hike in petrol prices?

Subsidy woes

The story is not over yet. One needs to do similar calculations for other products such as diesel, aviation fuel, kerosene and LPG. Unfortunately diesel is the primary thing that fuel public transport and distribution system in India and kerosene – LPG are house hold lifesavers when it comes to cooking purposes. In order to curb the inflation and protect the below poverty line people, the government has to subsidize it big time. A part of this subsidy cost is absorbed by the government while the oil marketing companies bear the other half. This puts some pressure on the government to increase taxes on luxury consumption sectors such as airlines by increasing aviation or jet fuel prices. They are also taxed heavily which is mainly borne by the rich or upper middle class people in India.
Why deregulation of petrol prices is good?

The deregulation of petrol prices will definitely increase the rate of inflation in short term. Virtually there will be immediate price rise in commodities and other consumables. However, for long term I think it is a good move because at the end it will definitely reduce our long term debt and fiscal deficit. Our overall economy will get stabler in this case.

Secondly, this measure will be a boost to the oil producing and marketing companies to recover their losses immediately. Remember, lakhs of people work in these huge companies and they need a life too. Moreover, the government run oil companies will be candidates for disinvestment which means that the government can lower their fiscal deficits further with additional income.

The other advantage is that the inflation, at the moment, is a fake figure. You will get to know the actual inflation and variation of commodity prices only when the petrol prices move according to the international crude prices.

This will also bring in big private players (e.g. Reliance) into the petrol marketing game. Remember that companies like Shell and Reliance used to provide excellent quality of petrol and service until Reliance pumps were forced to close down due to government regulations. This kind of competition will eventually bring in good service, good quality and in the future competitive pricing as well. The immediate woes will be compensated in the mid term – that’s my strong belief.

The government, in the meantime, should try to reduce the excise duties and restructure the VAT to minimize the impact of immediate fuel price rise on inflation and the poor people.

Long term solutions to curb petrol prices

In the long term, there are several viable solutions that needs to be done from the sourcing point to distribution and consumption.
There are possibilities of under sea pipes (just like the one we were planning with Iran for gas sourcing) from the vendor nation to India to reduce shipping cost. This has a very good long term positive impact though initial cost of incorporation is high.

The oil refining companies sourcing and storing mechanism needs to be optimized in a way that when the crude prices are low, we are able to store more. I am not sure, how much of optimization is done in this regard. Since we keep getting new and new governments every few years, they may not go for a long term plan for the same. Please remember that not too long back, the crude prices were at $35 or so per barrel.

There is a scope for improving the internal distribution system as well. Though, India has a huge geographical region, we can still have oil distribution pipes from refineries directly to the regional distribution centers. This needs long term planning.

Oil

India had about 5.6 billion barrels (890,000,000 m$^3$) of proven oil reserves as of January 2007, which is the second-largest amount in the Asia-Pacific region behind China. Most of India's crude oil reserves are located in the western coast (Mumbai High) and in the northeastern parts of the country, although considerable undeveloped reserves are also located in the offshore Bay of Bengal and in the state of Rajasthan.

The combination of rising oil consumption and fairly unwavering production levels leaves India highly dependent on imports to meet the consumption needs. In 2006, India produced an average of about 846,000 barrels per day (bbl/d) of total oil liquids, of which 77%, or 648,000 bbl/d (103,000 m$^3$/d), was crude oil. During 2006, India consumed an estimated 2.63 Mbbl/d (418,000 m$^3$/d) of oil. The Energy Information Administration (EIA) estimates that India registered oil demand growth of 100,000 bbl/d (16,000 m$^3$/d) during 2006. EIA forecasts suggest that country is likely to experience similar gains during 2007 and 2008.
Sector organisation

India’s oil sector is dominated by state-owned enterprises, although the government has taken steps in past recent years to deregulate the hydrocarbons industry and support greater foreign involvement. India’s state-owned Oil and Natural Gas Corporation (ONGC) is the largest oil company, and also the country’s largest company overall by market capitalization. ONGC is the leading player in India’s upstream sector, accounting for roughly 75% of the country’s oil output during 2006, as per Indian government estimates.

As a net importer of oil, the Government of India has introduced policies aimed at growing domestic oil production and oil exploration activities. As part of the effort, the Ministry of Petroleum and Natural Gas crafted the New Exploration License Policy (NELP) in 2000, which permits foreign companies to hold 100% equity possession in oil and natural gas projects. However, to date, only a handful of oil fields are controlled by foreign firms. India’s downstream sector is also dominated by state-owned entities, though private companies have enlarged their market share in past recent years.

Natural gas

As per the Oil and Gas Journal, India had 38 trillion cubic feet (Tcf) of confirmed natural gas reserves as of January 2007. A huge mass of India’s natural gas production comes from the western offshore regions, particularly the Mumbai High complex. The onshore fields in Assam, Andhra Pradesh, and Gujarat states are also major producers of natural gas. As per EIA data, India produced 996 billion cubic feet (Bcf) of natural gas in 2004.

India imports small amounts of natural gas. In 2004, India consumed about 1,089×10^9 cu ft (3.08×10^10 m^3) of natural gas, the first year in which the country showed net natural gas imports. During 2004, India imported 93×10^9 cu ft (2.6×10^9 m^3) of liquefied natural gas (LNG) from Qatar.

Sector Organization

As in the oil sector, India’s state-owned companies account for the bulk of natural gas production. ONGC and Oil India Ltd. (OIL) are the leading
companies with respect to production volume, while some foreign companies take part in upstream developments in joint-ventures and production sharing contracts (PSCs). Reliance Industries, a privately-owned Indian company, will also have a bigger role in the natural gas sector as a result of a large natural gas find in 2002 in the Krishna Godavari basin.

The Gas Authority of India Ltd. (GAIL) holds an effective control on natural gas transmission and allocation activities. In December 2006, the Minister of Petroleum and Natural Gas issued a new policy that allows foreign investors, private domestic companies, and national oil companies to hold up to 100% equity stakes in pipeline projects. While GAIL’s domination in natural gas transmission and allocation is not ensured by statute, it will continue to be the leading player in the sector because of its existing natural gas infrastructure.

Final thoughts

I think our citizens (and even people from rest of the world) are misusing petroleum products and this kind of abuse needs to be first controlled via price hikes and then by introducing alternate energy options and technologies to optimize the usage. There is a lot of scope for India to take out those old, fuel inefficient vehicles from our roads. I think the taxation needs to be restructured so that people and families who own more than one vehicle should be taxed more. There can be several other long term steps to improve the overall situation but please remember that at the end of it the petrol will anyhow get exhausted.

And a request to our great politicians who always oppose what the government is trying to implement. If you are really with the people of India, please come up with real practical suggestions to improve the situation. It wouldn’t be too long before you will be stone-pelt by the younger generation for preventing them an opportunity to live in a developed country by 2020.

And my questions to my friends (not the poor) who are earning in thousands and lakhs. How dare you crib about a three rupees rise in petrol
while you still prefer to drive to office alone in a 5, 10 or 15 lakh car?. More
over I haven't seen you cribbing while spending 1000 rupees for a dinner or
while buying a shirt worth 1500 rupees.

7.5.7 Aviation Industries in India.

The history of civil aviation in India started with its first commercial flight
on February 18, 1911. It was a journey from Allahabad to Naini made by a
French pilot Monseigneur Piguet covering a distance of about 10 km. Since
then efforts were on to improve the health of India's Civil Aviation Industry.
The first domestic air route between Karachi and Delhi was opened in
December 1912 by the Indian State Air Services in collaboration with the
Imperial Airways, UK as an extension of London-Karachi flight of the Imperial
Airways.

The aviation industry in India gathered momentum after three years
with the opening of a regular airmail service between Karachi and Madras by
the first Indian airline, Tata Sons Ltd. However this service failed to receive
any backing from the Indian Government.

At the time of independence nine Air Transport Companies were
operational in the Indian Territory. Later the number reduced to eight when
the Orient Airways shifted its base to Pakistan. The then operational airlines
were Tata Airlines, Indian National Airways, Air service of India, Deccan
Airways, Ambica Airways, Bharat Airways and Mistry Airways.

With an attempt to farther strengthen the base of the aviation sector in
India, the Government of India together with Air India (earlier Tata Airline) set
up a joint sector company, Air India International, in early 1948. With an initial investment of Rs. 2 crore and a fleet of three Lockheed constellation aircrafts, Air India started its journey in the Indian aviation sector on June 8, 1948 in Mumbai (Bombay)-London air route.

For many years since its inception the Indian Aviation Industry was plagued by inappropriate regulatory and operational procedures resulting in either excessive or no competition. Nationalization of Indian Airlines (IA) in 1953 brought the domestic civil aviation sector under the purview of Indian Government. Government's intervention in this sector was meant for removing the operational limitations arising out of excess competition.

Air transportation in India now comes under the direct control of the Department of Civil Aviation, a part of the Ministry of Civil Aviation and Tourism of Government of India.

Aviation by its very nature constitutes the elitist part of our country's infrastructure. This sector has substantial contribution towards the development of country's trade and tourism, providing easier access to the areas full of natural beauty. It therefore acts as a stimulus for country's growth and economic prosperity.

The 1978 Airline Deregulation Act partially shifted control over air travel from the political to the market sphere. The Civil Aeronautics Board (CAB), which had previously controlled entry, exit, and the pricing of airline services, as well as intercarrier agreements, mergers, and consumer issues, was phased out under the CAB Sunset Act and expired officially on December 31, 1984. The economic liberalization of air travel was part of a series of “deregulation” moves based on the growing realization that a politically controlled economy served no continuing public interest. U.S. deregulation has been part of a greater global airline liberalization trend, especially in Asia, Latin America, and the EUROPEAN UNION.

Network industries, which are critical to a modern economy, include air travel, railroads, electrical power, and TELECOMMUNICATIONS. The air travel sector is an example of a network industry involving both flows and a grid.
The flows are the mobile system elements: the airplanes, the trains, the power, the messages, and so on. The grid is the infrastructure over which these flows move: the airports and air traffic control system, the tracks and stations, the wires and cables, the electromagnetic spectrum, and so on. Network efficiency depends critically on the close coordination of grid and flow operating and investment decisions.

Under CAB regulation, investment and operating decisions were highly constrained. CAB rules limiting routes and entry and controlling prices meant that airlines were limited to competing only on food, cabin crew quality, and frequency. As a result, both prices and frequency were high, and load factors—the percentage of the seats that were filled—were low. Indeed, in the early 1970s load factors were only about 50 percent. The air transport market today is remarkably different. Because airlines compete on price, fares are much lower. Many more people fly, allowing high frequency today also, but with much higher load factors—74 percent in 2003, for example.

Airline deregulation was a monumental event. Its effects are still being felt today, as low-cost carriers (LCCs) challenge the “legacy” airlines that were in existence before deregulation (American, United, Continental, Northwest, US Air, and Delta). Indeed, the airline industry is experiencing a paradigm shift that reflects the ongoing effects of deregulation. Although deregulation affected the flows of air travel, the infrastructure grid remains subject to government control and economic distortions. Thus, airlines were only partially deregulated.

Benefits of Partial Deregulation

Even the partial freeing of the air travel sector has had overwhelmingly positive results. Air travel has dramatically increased and prices have fallen. After deregulation, airlines reconfigured their routes and equipment, making possible improvements in capacity utilization. These efficiency effects democratized air travel, making it more accessible to the general public.
Airfares, when adjusted for inflation, have fallen 25 percent since 1991, and, according to Clifford Winston and Steven Morrison of the Brookings Institution, are 22 percent lower than they would have been had regulation continued (Morrison and Winston 2000). Since passenger deregulation in 1978, airline prices have fallen 44.9 percent in real terms according to the Air Transport Association. Robert Crandall and Jerry Ellig (1997) estimated that when figures are adjusted for changes in quality and amenities, passengers save $19.4 billion dollars per year from airline deregulation. These savings have been passed on to 80 percent of passengers accounting for 85 percent of passenger miles. The real benefits of airline deregulation are being felt today as never before, with LCCs increasingly gaining market share.

The dollar savings are a direct result of allowing airlines the freedom to innovate in routes and pricing. After deregulation, the airlines quickly moved to a hub-and-spoke system, whereby an airline selected some airport (the hub) as the destination point for flights from a number of origination cities (the spokes). Because the size of the planes used varied according to the travel on that spoke, and since hubs allowed passenger travel to be consolidated in “transfer stations,” capacity utilization (“load factors”) increased, allowing fare reduction. The hub-and-spoke model survives among the legacy carriers, but the LCCs—now 30 percent of the market—typically fly point to point. The network hubs model offers consumers more convenience for routes, but point-to-point routes have proven less costly for airlines to implement. Over time, the legacy carriers and the LCCs will likely use some combination of point-to-point and network hubs to capture both economies of scope and pricing advantages.

The rigid fares of the regulatory era have given way to today’s competitive price market. After deregulation, the airlines created highly complex pricing models that include the service quality/price sensitivity of various air travelers and offer differential fare/service quality packages designed for each. The new LCCs, however, have far simpler price structures—the product of consumers’ (especially business travelers’)

300
demand for low prices, increased price transparency from online Web sites, and decreased reliance on travel agencies.

As prices have decreased, air travel has exploded. The total number of passengers that fly annually has more than doubled since 1978. Travelers now have more convenient travel options with greater flight frequency and more nonstop flights. Fewer passengers must change airlines to make a connection, resulting in better travel coordination and higher customer satisfaction.

Industry Problems after Deregulation

Although the gains of economic liberalization have been substantial, fundamental problems plague the industry. Some of these problems are transitional, the massive adjustments required by the end of a half century of strict regulation. The regulated airline monopolies received returns on capital that were supposed to be “reasonable” (comparable to what a company might expect to receive in a competitive market), but these returns factored in high costs that often would not exist in a competitive market. For example, the airlines’ unionized workforce, established and strengthened under regulation and held in place by the Railway Labor Act, gained generous salaries and inefficient work rules compared with what would be expected in a competitive market. Problems remain in today’s market, especially with the legacy airlines.

Health of the Industry

The airlines have not found it easy to maintain profitability. The industry as a whole was profitable through most of the economic boom of the 1990s. As the national economy slowed in 2000, so did profitability for the legacy airlines. Consumers became more price-sensitive and gravitated toward the lower-cost carriers. High labor costs and the network hub business model hurt legacy airlines’ competitiveness. Hub-and-spoke systems decreased unit costs but created high fixed costs that required larger terminals, investments in INFORMATION technology systems, and intricate revenue management systems. The LCCs have thus far successfully competed on price due to
lower hourly employee wages, higher PRODUCTIVITY, and no pension deficits. It remains to be seen whether the LCC cost and labor structures will change over time.

The Air Transport Association reports that the U.S. airline industry experienced net losses of $23.2 billion from 2001 through 2003, though the LCCs largely remained profitable. While the September 11, 2001, terrorist attack and its aftermath are a major factor in the industry’s hardships, they only accelerated an already developing trend within the industry. The industry was experiencing net operating losses for many reasons, including the mild recession, severe acute respiratory syndrome (SARS), and the increase in LCC services and the decline in business fares relied on by legacy carriers. Higher fuel prices, residual labor union problems, fears of terrorism, and the intrusive measures that government now uses to clear travelers through security checkpoints are further drags on the industry.

**Remaining Domestic Economic Controls**

As a form of regulation, ANTITRUST laws inhibit post-deregulation restructuring efforts, making it harder to bring salaries and work rules into line with the realities of a competitive marketplace. The antitrust regulatory laws inhibit the restructuring of CORPORATIONS and block needed consolidation; the antitrust authorities view with suspicion efforts to retain higher prices. Historically, the CAB had antitrust jurisdiction over airline mergers. When Congress disbanded the CAB in 1985, it temporarily transferred merger review authority to the Department of Transportation (DOT). In 1989, the Justice Department assumed merger review jurisdiction from the DOT that, when combined with its antitrust authority under the Sherman Act, makes it the primary antitrust regulator of the airline industry.

The Justice Department has contested past merger proposals, including Northwest’s attempt to gain a controlling interest in Continental and the merger of United Airlines and US Airways. Antitrust law also applies to international alliances, arrangements that attempt to ameliorate restrictive foreign ownership and COMPETITION laws. While labor contracts, airport asset
management, and other business practices are themselves high barriers to restructuring, these difficulties are magnified by antitrust regulatory hurdles. Cabotage restrictions, discussed below, also limit competition.

**Reservation Systems**

During the regulatory era, rates were determined politically and changed infrequently. The CAB had to approve every fare, limiting the airlines’ ability to react to demand changes and to experiment with discount fares. After deregulation, airlines were free to set prices and to change them frequently. That was possible only because the airlines had earlier created computer reservation systems (CRSs) capable of keeping track of the massive inventory of seats on flights over a several-month period.

The early CRSs allowed the travel agent to designate an origin-destination pair and call up all available flights. The computer screen could show only a limited number of flights at one time, of course; thus, some rule was essential to rank-order the flights shown. CRSs were available only to travel agents and, beginning in 1984, were highly regulated to ensure open access to airlines that had not developed their own CRS system. The DOT regulations restricted private agreements for guaranteeing access. However, the growth of INTERNET travel sites and direct access to airline Web sites created new forms of competition to the airline reservation systems. Therefore, the DOT allowed the CRS regulations to expire in 2004.

**Problems with Political Control of the Grid**

A network can be efficient only if the flows and the grid interact smoothly. The massive expansion of air travel should have resulted in comparable expansions—either in the physical infrastructure or in more sophisticated grid management. Government management of the air travel grid has resulted in political compromises that cause friction with the smooth flow across the grid. Flight delays are increasing due to a lack of aviation infrastructure and the failure to allocate air capacity efficiently. The Air Transport Association estimates that delays cost airlines and passengers
more than five billion dollars per year due to the increased costs for aircraft operation and ground personnel and loss of passengers’ time. The FAA predicts that the number of passengers will increase by 60 percent and that cargo volume will double by 2010.

**Airports**

Airport construction and expansion face almost insurmountable political and regulatory hurdles. The number of federal requirements associated with airport finances has grown considerably in recent years and is tied to the awarding of grants from the federal Airport Improvement Program (AIP). Since 1978, only one major airport has been constructed (in Denver), and only a few runways have been added at congested airports. Airport construction faces significant nonpolitical barriers, such as vocal “not in my back yard” (NIMBY) opposition and environmental noise and emissions considerations. Federal law restricts the fees airports charge air carriers to amounts that are “fair and reasonable.” These fee restrictions, although promoted as a way to provide nondiscriminatory access to all aircraft, limit an airport’s ability to recover costs for air carriers’ use of airfield and terminal facilities. Allowing airports more flexibility to price takeoffs and landings based on SUPPLY and DEMAND would also help ease congestion at overburdened airports.

**Air Traffic Control**

Air traffic control involves the allocation of capacity and has a complex history of government management. Unfortunately, the Federal Aviation Administration (FAA), which manages air traffic control, made bad upgrading decisions. The advanced system funded by the FAA was more than a decade late and never performed as hoped. The result was that the airline expansion was not met by an expanded grid, and congestion occurred.

Better technology for air traffic control will help efficient navigation and routings. Global Positioning System (GPS) navigation technology holds great promise for more precise flight paths, allowing for increased airplane traffic. Ultimately, however, a privately managed system that allows for better
coordination of airline investment and operation decisions will be necessary to ease congestion. Air traffic control operation is a business function distinct from the regulation of air traffic safety. Using pricing mechanisms to allocate the scarce resource of air traffic capacity would reduce congestion and more efficiently allocate resources.

Implementing cost-based structures by privatizing air traffic control is a controversial and politically daunting issue in the United States, but twenty-nine nations—including Canada—have already separated their traffic systems from their regulating agency. Air traffic control PRIVATIZATION will likely be driven by the decreasing ability of the Airport and Airways Trust Fund to deliver the necessary financial support.

Currently, the FAA rations flights by delay on a first-come, first-served basis—a system that creates overcrowding during peak hours. A system based on pricing at rates determined by voluntary contractual arrangements of market participants, not government regulators, would reduce this overcrowding. One of the results would be the use of “congestion pricing,” such as rush hour surcharges or early bird discounts.

**Airport Access**

FAA rules that limit the number of hourly takeoffs and landings—called “slot” controls—were adopted in 1968 as a temporary measure to deal with congestion and delays at major airports. These artificial capacity limitations—known as the high density rule—still exist at JFK, LaGuardia, and Reagan National. However, limiting supply through governmental fiat is a crude form of demand management. Allowing increased capacity and congestion pricing, and allowing major airports to use their slots to favor larger aircraft, would lead to better results.
Remaining International and Economic Rules

International Competition

“Open Skies” agreements are bilateral agreements between the United States and other countries to open the aviation market to foreign access and remove barriers to competition. They give airlines the right to operate air services from any point in the United States to any point in the other country, as well as to and from third countries. The United States has Open Skies agreements with more than sixty countries, including fifteen of the twenty-five European Union nations. Open Skies agreements have been successful at removing many of the barriers to competition and allowing airlines to have foreign partners, access to international routes to and from their home countries, and freedom from many traditional forms of economic regulation. A global industry would work better with a globally minded set of rules that would allow airlines from one country (or investors of any sort) to establish airlines in another country (the right of establishment) and to operate domestic services in the territory of another country (cabotage). However, these agreements still fail to approximate the freedoms that most industries have when competing in other global markets.

National Ownership

National ownership laws are an archaic barrier to a more competitive air travel sector. These rules seem to reflect a concern for national security, even though many industries as strategic as the airline industry do not have such restrictions.

Federal law restricts the percentage of foreign ownership in air transportation. Only U.S.-registered aircraft can transport passengers and freight domestically. Airline citizenship registration is limited to U.S. citizens or permanent residents, partnerships in which all partners are U.S. citizens, or corporations registered in the United States in which the chief executive officer and two-thirds of the directors are U.S. citizens and where U.S. citizens hold or control 75 percent of the capital stock. Only U.S. citizens are able to
obtain a certificate of public convenience and necessity, a prerequisite for operation as a domestic carrier.

Additional Problems Resulting from the 9/11 Response

After 9/11, safety and security regulation responsibilities were given to the new Transportation Security Administration (TSA) within the Department of Homeland Security. Created just months after 9/11, the TSA is an outgrowth of the belief that only the government can be entrusted to perform certain duties, especially those related to security. No one has clearly established that a government whose employees are difficult to fire, even for incompetence, will do better than a private employer who can more easily fire incompetent workers.

In September 2001, Congress passed the Air Transportation Safety and System Stabilization Act, which authorized payments of up to five billion dollars in assistance to reimburse airlines for the post attack four-day shutdown of air traffic and attributable losses through the end of 2001. It also created and authorized the Air Transportation Stabilization Board (ATSB) to provide up to ten billion dollars in loan guarantees for airlines in need of emergency capital. While the ATSB risked the kind of mission creep that is inevitable in an industry subsidy program, the deadline for applications to the ATSB has passed. Of the ten billion dollars authorized by Congress for these loan guarantees, the board actually committed less than two billion.

The main thrust of the plan was on making civil aviation sector financially self sustaining. From this point of view, efforts to generate larger internal resources are being made. The civil aviation sector has recently been opened up to private sector and private airlines have captured substantial share of this traffic on trunk routes. Under the Ninth Plan, it was proposed to provide adequate capacity in air transport operations. The objective was also to ensure healthy competition between the private and the public sector.

During the Tenth Plan, an outlay of Rs.12,928 crore was provided to the Ministry of Civil Aviation out of which rs.7,792 crore was spent. There was
a massive expansion in air transport services during this Plan due to opening up of domestic skies to private carriers. Important developments in the airline and airport sector included: (1) modernization and restructuring of Delhi and Mumbai airports launched through joint venture companies; (2) development of Greenfield airports at Bangalore and Hyderabad on a Build-Own-Operate-Transfer basis with PPP (public-private partnership); (2) approval of modernization of 35 non-metro airports and 13 other airports to world-class standards in phases; (4) liberalization of FDI (foreign direct investment) limit upto 100 per cent through automatic route for setting up Greenfield airports; (5) acquisition of modern and technologically advanced aircraft for Air India Ltd., Air India Charters Ltd., and Indian Airlines Limited; (6) liberalization of bilateral air services agreement in line with the contemporary developments in international civil aviation sector; (7) adoption of a limited Open Sky Policy in international travel to meet the traffic demand during peak season; and (8) adoption of trade facilitation measures in custom procedures to facilitate speedy clearance of air cargo.

The Eleventh Plan has laid down the following objectives for the civil aviation sector: (i) providing world class infrastructure facilities; (ii) providing safe, reliable and affordable air services so as to encourage growth in passenger and cargo traffic; and (iii) providing air connectivity to remote and inaccessible areas with special reference to north-eastern part of the country. The total projected outlay for the Ministry of Civil Aviation in the Eleventh Plan has been kept at Rs.43,560 crore at 2006-07 prices.

Air India and Indian Airlines operating in the international sector and domestic sector respectively since 1953 are both in the public sector. They enjoyed monopoly statues for a considerable period of time. However, in recent years, a larger number of private sector companies have entered the civil aviation sector as the government has ended the monopoly of Air India and Indian Airlines by repealing the Air Corporation Act, 1953. Air India and Indian Airlines were merged on August 27, 2007 to form National Aviation Company of India Ltd. (NACIL). Presently, there are three companies in the public sector – NACIL, Air India Charters Ltd., and Alliance Air. In addition,
there are seven private scheduled operators. A new category of scheduled airlines i.e., Scheduled Air Transport (Regional) services has been introduced to enhance connectivity to smaller cities and within a region. Two cargo airlines are also operating scheduled cargo services in the country.

The main thrust of the plan was on making civil aviation sector financially self sustaining. From this point of view, efforts to generate larger internal resources are being made. The civil aviation sector has recently been opened up to private sector and private airlines have captured substantial share of this traffic on trunk routes. Under the Ninth Plan, it was proposed to provide adequate capacity in air transport operations. The objective was also to ensure healthy competition between the private and the public sector.

During the Tenth Plan, an outlay of Rs.12,928 crore was provided to the Ministry of Civil Aviation out of which Rs.7,792 crore was spent. There was a massive expansion in air transport services during this Plan due to opening up of domestic skies to private carriers. Important developments in the airline and airport sector included: (1) modernization and restructuring of Delhi and Mumbai airports launched through joint venture companies; (2) development of Greenfield airports at Bangalore and Hyderabad on a Build-Own-Operate-Transfer basis with PPP (public-private partnership); (2) approval of modernization of 35 non-metro airports and 13 other airports to world-class standards in phases; (4) liberalization of FDI (foreign direct investment) limit upto 100 per cent through automatic route for setting up Greenfield airports; (5) acquisition of modern and technologically advanced aircraft for Air India Ltd., Air India Charters Ltd., and Indian Airlines Limited; (6) liberalization of bilateral air services agreement in line with the contemporary developments in international civil aviation sector; (7) adoption of a limited Open Sky Policy in international travel to meet the traffic demand during peak season; and (8) adoption of trade facilitation measures in custom procedures to facilitate speedy clearance of air cargo.

The Eleventh Plan has laid down the following objectives for the civil aviation sector: (i) providing world class infrastructure facilities; (ii) providing safe, reliable and affordable air services so as to encourage growth in
passenger and cargo traffic; and (iii) providing air connectivity to remote and inaccessible areas with special reference to north-eastern part of the country. The total projected outlay for the Ministry of Civil Aviation in the Eleventh Plan has been kept at Rs.43,560 crore at 2006-07 prices.

Air India and Indian Airlines operating in the international sector and domestic sector respectively since 1953 are both in the public sector. They enjoyed monopoly statues for a considerable period of time. However, in recent years, a larger number of private sector companies have entered the civil aviation sector as the government has ended the monopoly of Air India and Indian Airlines by repealing the Air Corporation Act, 1953. Air India and Indian Airlines were merged on August 27, 2007 to form National Aviation Company of India Ltd. (NACIL). Presently, there are three companies in the public sector – NACIL, Air India Charters Ltd., and Alliance Air. In addition, there are seven private scheduled operators. A new category of scheduled airlines i.e., Scheduled Air Transport (Regional) services has been introduced to enhance connectivity to smaller cities and within a region. Two cargo airlines are also operating scheduled cargo services in the country.

The main thrust of the plan was on making civil aviation sector financially self sustaining. From this point of view, efforts to generate larger internal resources are being made. The civil aviation sector has recently been opened up to private sector and private airlines have captured substantial share of this traffic on trunk routes. Under the Ninth Plan, it was proposed to provide adequate capacity in air transport operations. The objective was also to ensure healthy competition between the private and the public sector.

During the Tenth Plan, an outlay of Rs.12,928 crore was provided to the Ministry of Civil Aviation out of which Rs.7,792 crore was spent. There was a massive expansion in air transport services during this Plan due to opening up of domestic skies to private carriers. Important developments in the airline and airport sector included : (1) modernization and restructuring of Delhi and Mumbai airports launched through joint venture companies; (2) development of Greenfield airports at Bangalore and Hyderabad on a Build-Own-Operate-Transfer basis with PPP (public-private partnership); (2) approval of
modernization of 35 non-metro airports and 13 other airports to world-class standards in phases; (4) liberalization of FDI (foreign direct investment) limit upto 100 per cent through automatic route for setting up Greenfield airports; (5) acquisition of modern and technologically advanced aircraft for Air India Ltd., Air India Charters Ltd., and Indian Airlines Limited; (6) liberalization of bilateral air services agreement in line with the contemporary developments in international civil aviation sector; (7) adoption of a limited Open Sky Policy in international travel to meet the traffic demand during peak season; and (8) adoption of trade facilitation measures in custom procedures to facilitate speedy clearance of air cargo.

The Eleventh Plan has laid down the following objectives for the civil aviation sector: (i) providing world class infrastructure facilities; (ii) providing safe, reliable and affordable air services so as to encourage growth in passenger and cargo traffic; and (iii) providing air connectivity to remote and inaccessible areas with special reference to north-eastern part of the country. The total projected outlay for the Ministry of Civil Aviation in the Eleventh Plan has been kept at Rs.43,560 crore at 2006-07 prices.

Air India and Indian Airlines operating in the international sector and domestic sector respectively since 1953 are both in the public sector. They enjoyed monopoly statues for a considerable period of time. However, in recent years, a larger number of private sector companies have entered the civil aviation sector as the government has ended the monopoly of Air India and Indian Airlines by repealing the Air Corporation Act, 1953. Air India and Indian Airlines were merged on August 27, 2007 to form National Aviation Company of India Ltd. (NACIL). Presently, there are three companies in the public sector – NACIL, Air India Charters Ltd., and Alliance Air. In addition, there are seven private scheduled operators. A new category of scheduled airlines i.e., Scheduled Air Transport (Regional) services has been introduced to enhance connectivity to smaller cities and within a region. Two cargo airlines are also operating scheduled cargo services in the country.
Conclusion

Air travel is a network industry, but only its flow element—the airlines—is economically liberalized. The industry is still structurally adjusting to a more competitive situation and remains subject to a large number of regulations. The capital, work rules, and compensation practices of the airline industry still reflect almost fifty years of political protection and control.

We are finally seeing the kinds of internal restructuring among airlines that was expected from deregulation. Yet, government still has much to do to ensure that the airline market will thrive in the future. The FAA is a command-and-control government agency ill-suited to providing air traffic control services to a dynamic industry. Land slots and airport space should be allocated using market prices instead of through administrative fiat. International competition will increase, and rules regarding national ownership need to change accordingly.

If the government deregulates the grid and transitions toward a market solution, the benefits of flow deregulation will increase, and costs for air travelers will fall even more.

7.5.8 Telecommunications Reform and the Emerging ‘New-Economy’: The Case of India

Telecommunications reform in recent years in almost all developed and developing nations created an opportunity to attract foreign direct investment. The investments have been taking place mainly in the emerging ‘new’ economy sector. The main drivers of this sector are the information technology (knowledge-based) and the liberalisation and reform in telecommunications. Among the developing nations, the Indian economy fared better in attracting foreign direct investment in this sector due to the economic reform measures continued since 1991. The economic and the regulatory reforms brought into the telecommunications sector of India have been addressed. Second, the emergence of the ‘new-economy’ and its

contribution to growth has been investigated. Finally, the challenges for the Indian economy in managing the newly emerged economic opportunities have been discussed.

Introduction

The dynamism of global telecommunications markets is widely attributed to rapid technological development and an increasingly liberal policy environment. Over the past decade, a large number of Asian economies, including India, have also embarked on reform paths, and witnessed significant expansion of their telecommunication networks and tremendous improvements in quality. Furthermore, it is not always apparent where the improved performance is because of specific policy choices rather than in spite of them, and where more could have been achieved had policy been different. Choices have to be made regarding the privatisation of state-owned telecommunications operators, the introduction of competition, the opening of markets to foreign investment and the establishment of pro-competitive regulations.

While there is growing consensus that each of these elements is desirable, there are few countries that have immediately gone all the way on all fronts.

The Indian authorities have realised that development of an effective and efficient telecommunications sector is a key to the growing international competitiveness of the country. The government launched several reform measures in telecommunications in the last decade. Since 1991, the telecommunications sector has expanded exponentially as a result of these measures. In 1972, the country had only a million telephone lines, by 1996 it had more than 14 million, by 2000 more than 25 million and by June 2002 more than 41 million (Nasscom, 2002; Kathuria, 2000; World Bank, 1995). To examine the telecommunications reforms in India since 1991 and to investigate the emergence of the ‘new-economy’ out of the expanded and modern telecommunications network over the last twelve years. Finally, the challenges ahead have been identified in order to remain competitive.
Section two presents a systematic analysis of the economic reform measures in telecommunications industry. Section three provides an account on the industry structure during the pre- and post-reform era, section four covers the regulatory reform introduced since 1991, section five addresses the emerging ‘new economy’ sector and its challenges. Finally, a conclusion has been drawn.

Economic Reform

The economic reform agenda in telecommunications has been addressed in two policy documents produced in 1994 and 1999 popularly known as: National Telecom Policy 1994 (NTP, 1994) and New Telecom Policy 1999 (NTP, 1999). These policies are briefly presented below:

1. National Telecom Policy 1994

A major programme has been undertaken to expand and upgrade India’s telecom network since 1991. The programme includes: complete freedom of telecom equipment manufacturing, privatisation of services, liberal foreign investment and new regulation in technology imports. Simultaneously, the government-managed Department of Telecommunications (DoT) has been restructured to remove its monopoly status as the service provider. Most value-added services, including cellular phones and radio pagers, which were virtually non-existent in the pre-reform era, have grown at an unprecedented rate (Hossain, 1998). The government programme was formalised on a telecom policy statement called “National Telecom Policy 1994” on 12 May 1994 (full record of this policy can be found in www.trai.gov.in/ntp1994.htm).

The major provisions the NTP94 have incorporated are:

• to allow new entrants to provide basic telephone services to supplement DoT’s service;

• to maintain DoT’s status as sole provider of long distance services and confirms that DoT will remain a government Department;
to set targets for providing all villages with access to a telephone by the end of 1997;

to endorse the existing policy whereby the private sector will be the main provider of value-added services;

to encourage pilot projects which envisage inflow of new technology and management techniques generally involves foreign investment; and to indicate that the mechanism will be set up to protect consumer interests and ensure fair competition.

What was the outcome of NTP94? Compared to its commitments and provisions endorsed by 1994 statement, the outcome was less satisfactory. Only a handful of the targets set by this policy agenda was achieved. –

“For example, as against providing one Public Call Office (PCO) per 500 urban Indian population and the telephone coverage of 576,490 villages in India, the DoT has achieved an urban penetration of one PCO per 522 and has been able to provide telephone services to only 310,000 villages. However, the DoT also has provided 8.73 million telephone lines against the eight-five year plan target of 7.5 million telephone lines.”

Overall, the NTP94 was not sufficient to make the India’s telecommunications sector fully open and liberalised. The incumbent monopoly (DoT) was indifferent in implementing the national telecom policy effectively due to its lack of commitment and also due to the instability at the Centre (frequent changes of governments) over 1994 and 1998. This paved the way for designing a new policy framework for telecommunications which was called the New Telecom Policy 1999 (NTP99) and was delivered by the new government led by BJP coalitions.

2. The New Telecom Policy 1999

The New Telecom Policy 1999 (NTP99) was developed at the backdrop of three major events witnessed by the Indian economy after the reform process began in 1991. First, although NTP94 was a right step to bring
reform in the telecommunications industry, it failed to achieve a desired goal until 1997.

“Overall, the NTP99 is a comprehensive and progressive telecom policy framework. It addresses the outstanding issues of telecommunications development and the challenges of modern telecommunications technology. NTP 99 recognises the crucial role of private sector investment in the development process of the sector and to bridge the much-needed financial resources gap.”

Among other things the NTP99 has endorsed policies under 5 policy frameworks:

• Framework for Services Deployment
• Framework for Licensing of Telecom Services
• Framework for Restructuring of Telecom Organisations
• Framework for Further Liberalisation of Services
• Framework for Regulation.

Each of these policy frameworks will be discussed further in the subsequent relevant sections of this paper.

3. Post-Reform Industry Structure

Under the Indian constitution, only the central government can legislate on telecommunications. The central government has been the monopoly provider of telecommunications services through the Department of Telecommunications (DoT), which is under the jurisdiction of the central government’s Ministry of Communications.

3.1 Industry structure before reform

Before 1989, a Telecom Board with a director-general at the helm steered the Board on behalf of the central government. The DoT corporatised two of its operational wings in 1986. These are called Videsh Sanchar Nigam
Limited (VSNL), responsible for international operations and Mahanagar Telephone Nigam Limited (MTNL), which has operational responsibility for providing telephone services in metropolitan Delhi and Mumbai, which comprise nearly a quarter of the total telecom network. The rest of the country remained under the jurisdiction of the DoT. In May 1989, the Telecom Board was replaced by a Telecommunications Commission with a much broader mandate than the board. Telecommunications operations were divided into five areas and headed by five full time members of the Commission. These areas are: telecom policy, regulation, technical research and development, design and manufacture of equipment, and provision of telecommunications services. The Secretary of the DoT holds the position of Commission Chairman.

Table 1 presents the industry structure before NTP94 was introduced. Although the Indian economy embraced economic reform agenda in 1991, the reform in telecommunications began with the design of the NTP94 statement. By the end of March 1995, the country had 9.38 million telephone lines with installed capacity of a further 10 million lines. The demand for telephone sources over the last ten years has grown by almost 12.2 per cent with actual growth in installation of 11.8 per cent. The total workforce in the industry stood at 470,000 persons.

### 3.2 Industry structure after reform

Immediately after the announcement of NTP94, the telecommunications industry in India came to terms with the on-going reform process in the sector. All players in the sector, foreign and local private investors and subscribers anticipated a major shake up of the industry after this policy statement came into being. As shown in the previous section, NTP94 was a half-hearted step on the part of the central government to bring major reform in telecommunications in India. Eventually, the implementation of this policy was not able to make major breakthrough in the growth of the sector until the NTP99 came out and was regarded as a comprehensive programme of telecommunications policy reform in India. This section presents the industry structure and shape after the introduction of the NTP94.
Table 2 presents the performance for basic services since 1996. Fixed or basic services have been provided by two major public carriers after liberalisation in early 1990s. The DoT (now Bharat Shanchar Nigam Limited, BSNL) has been covering all of India except two metros: Delhi and Mumbai. BSNL’s share has increased from 79 per cent to 86 per cent between Mar-97 and June-01 while the share for MTNL has dropped from 21 per cent to below 13 per cent of the total connections. This suggests that the basic services have expanded all over India except in Delhi and Mumbai.

In the early years after liberalization, India restricted the number of licenses awarded in basic services. The market was divided into separate circles and the policy admitted one private operator in each to compete with the incumbent BSNL. New entrants were allowed to offer intra-circle long distance services, but the BSNL maintained its monopoly on inter-circle long distance telephony. Recently, in the year 2001, the policy was changed to allow unlimited entry into each circle for basic services and subsequent to the bidding process 22 license agreements have been signed. As opposed to the fixed license fee regime based on which licenses were awarded earlier, fresh licenses have been issued on the basis of a one time entry fee and a percentage of revenue share that is linked to the area of operation1. Table 3 presents the details of the new licenses issued.

In total, before liberalisation India’s basic service comprised only 9.5 million, it has increased by almost 4.5 times to 42 million in 2003. By all means, the growth of basic telecommunications services in India has been phenomenal over the last five years. The prospect in the future is brighter with the policies in place under NTP99.

This policy’s framework for service deployment suggests the following initiatives:

1 License fees is fixed as 12, 10 and 8 per cent of gross revenues for Circles A, B and C respectively.
• Availability of basic telephone services on demand by year 2002
• Target of teledensity of 7 per cent by year 2005 and 15 per cent by year 2010
• Completion of full rural telephone coverage by year 2002
• Target of rural teledensity of 4 per cent by year 2010
• Provision of Internet access in all Indian districts by year 2000
• Encouragement of sharing infrastructure facilities by all service providers
• Expeditious clearances for right-of-way to all service providers
• Direct interconnectivity of telecom networks as far as possible
• Identification of some areas as special thrust areas for service deployment
• Permission to use Ku-band satellite communications for long distance data communications
• Acceptance of all recommendations of the national Informatics Task Force in relation to ISPs.

The other growth area of the Indian telecommunications industry is the cellular mobile market.

Table 4 presents a brief profile of this market. The number of cellular subscribers in the country exceeded 10 million at the end of 2002 compared to mere 0.2 million in 1996. In the year 2001, the compound annual growth rate of subscribers was in excess of 90 per cent. Private participation in the cellular market was introduced in 1994. Initially fourteen licences were awarded, two in each of the four metros: Delhi, Mumbai, Chennai and Kolkata. Non-metro areas (Circles A, B and C) are serviced by other private service providers.
Introduction of private service providers in the mobile market has revolutionised the industry over the last five years. The NTP-99 attempts to create an environment to expand the subscriber base further in coming years. It provides for public sector entities BSNL and MTNL to be the third operator in each service area, while recently bidding for the fourth license resulted in licenses being awarded to 17 more operators.

Table 5 provides details of the existing players circle wise. The overall growth of basic services and mobile phone services are presented in

Table 6. In Delhi and Mumbai the growth in fixed line services was 21 per cent during this period while in the case of mobile services in four metros the growth has been 71 per cent between 2000 and 2001. However, the all India figures have been staggering for both the markets. The fixed line service has been nearly doubled and the mobile services grew by almost 10 times. This suggests that the telecom industry in India has been responding very positively to the reform measures introduced in early 1990s and to the policies incorporated in NTP 94 and NTP 99.

4. Regulatory Reform

India’s economic reform in telecommunications goes hand in hand with regulatory reform from the early 1990s. Telecommunications regulatory reform in India can be divided into two categories: reform introduced under the NTP94 and reform introduced under the NTP99. This section presents an illustration on reform measures taking these two documents into consideration.

4.1 Regulatory reform under NTP94

The regulatory reform began with introduction of an independent regulatory agency called the “Telecom Regulatory Authority of India (TRAI)” in March 1997. NTP-94 had a provision to introduce such an independent entity to regulate telecommunications in India. The need for such an authority was felt due to on-going liberalisation and economic reform introduced to the
industry following the government’s publication of NTP94. Among other things, NTP94 has brought the following changes in the industry:

- New entry for basic telephone services will be permitted as duopolies (that is, DoT and one other operator) in the twenty one ‘Circles’ into which the country has been divided;

- DoT will retain the long distance monopoly for five years after which the decision would be reviewed; and

- Foreign ownership of telecom operators will be welcome up to 49 per cent of equity (from World Bank, 1995: 104-5).

With all these changes in place an independent regulator for the industry was overdue. The Telecom Regulatory Authority of India Act 1997 established the Telecom Regulatory Authority of India (TRAI) in January 1997, with a view to provide an effective regulatory framework and adequate safeguards to ensure fair competition and protection of consumer interests. To achieve the objectives of the TRAI Act, TRAI was given power to give directions to service providers, make regulations, notify tariffs by Order, and adjudicate disputes arising between government (in its role as service provider) and any other service provider. Among all the powers and duties, its authority and jurisdiction to settle disputes among the service providers has been important. However, there was a ruling by Delhi High Court against the TRAI about its power and jurisdiction in July 1998. The High Court ruled, “it was not mandatory for the Indian government to seek recommendations of the TRAI prior to issuing licences for telecommunications services in the country”. The judgement affirmed the powers of the DoT, i.e. the government, to issue licenses without recommendations from TRAI. It also clarified that TRAI did not have the power to over-ride the license conditions. The High Court concluded that “the powers of the TRAI cannot be construed as a precondition precedent to the exercise of any other powers by the DoT on behalf of the government under the Indian Telegraph Act No.13 of 1885”. With this ruling in place the new and the independent telecom regulator in India had a controversial and bumpy start. In addition, another High Court judgment
in January 2000 observed that the TRAI Act 1997 did not empower the regulator to fix interconnection terms and conditions between service providers and that TRAI had merely a policing function in this regard. This meant that the Calling Party Pays (CPP) regime for cellular mobile that TRAI sought to introduce in November 1999 that inter-alia specified explicit revenue shares for calls from Basic to the cellular network could not be implemented. Soon after this judgement the TRAI Act was amended and a new Act, the TRAI (Amendment) Act 2000 was introduced. These episodes of conflict between the incumbent and the regulator undermined the credibility of the regulator during the initial years of telecom liberalisation in India. Prior to this, DoT was responsible for the industry regulation as a part of government operation. According to Selvarajah, “overall, the TRAI has the powers and functions of a typical telecom regulator”. It appears that in practice the TRAI faced major hurdles to function appropriately in the initial period due to some High Court rulings sought by the DoT about the jurisdiction and obligations of the TRAI. This has made TRAI less effective and has forced a process of continuous transformation in the early years.

The next section provides a brief overview of the players in regulation as it stands in India at present.

4.1.1 Players in Regulation

India’s telecommunications sector is regulated by the Ministry of Communications through three government bodies — the Telecom Commission, the Department of Telecommunications, and the Telecom Regulatory Authority of India. The Telecom Commission performs the executive and policy-making function, the DoT is the policy-implementing body while the TRAI performs the function of an independent regulator.

a) Department of Telecommunications, Ministry of Communications

The Department of Telecommunications, Ministry of Communications, is the Authority in India that looks after the licensing and overall policy making in India. Until recently, DoT was also the main service provider. The service provider role has been separated from DoT, and is now functioning as a
corporate body, Bharat Sanchar Nigam Limited (BSNL). Two other government corporations are also important service providers. Mahanagar Telephone Nigam Limited (MTNL) operates in Mumbai and Delhi as a service provider with license for, inter alia, basic service, cellular mobile and Internet access. Videsh Sanchar Nigam Limited (VSNL) has a monopoly in the international call segment and has a license for providing some other services including the Internet. The government is a major shareholder in both MTNL and VSNL, and has substantive control over the decisions of these service providers. In fact, they may also end up competing with each other for the same market. This has already started happening in certain cases, for instance, with MTNL and VSNL for the Internet market. A competitive situation would require greater autonomy for MTNL and VSNL.

(b) Telecom Regulatory Authority of India

On 24 January 2000, an Ordinance amended the TRAI Act 1997 and altered a number of aspects. For example, the adjudicatory role of the TRAI has been separated and has been provided to a Telecom Dispute Settlement and Appellate Tribunal (TDSAT)

This Tribunal has been provided the powers to adjudicate any dispute

(i) between a licensor and a licensee;
(ii) between two or more service providers;
(iii) between a service provider and a group of consumers.

TDSAT has been given additional powers those it inherited from TRAI; for example, it can settle disputes between licensor and licensee. Further, the decisions of the Tribunal may be challenged only in the Supreme Court. The remaining functions of TRAI have been better defined and increased; for instance, with respect to powers relating specifically to interconnection conditions. TRAI now has the power to ‘fix the terms and conditions of interconnectivity between the service providers’ (TRAI (Amendment) Act 2000), instead of ‘regulating arrangements between service providers of sharing
revenue from interconnection’ (TRAI ACT 1997). The new legalisation signaled an attempt to re-establish a credible regulator. The government would be required to seek a recommendation from TRAI when issuing new licenses. The adjudication of licensor-licensee disputes would be undertaken by an independent tribunal specialised in telecom. In terms of interconnection arrangements, TRAI was given the powers to override the provisions of license agreements signed with DoT. However, while there has been an increase in the powers of the Authority (other than dispute settlement), the Ordinance has led to a weakening of the guarantee that was provided in the Act with respect to the five year working period for the TRAI Chairman and Members. This statutory guarantee was done away with by the Ordinance, which provides for less stringent conditions for removal of any Authority Member or Chairman. To that extent, the independence of the Authority has been whittled down. More on TRAI is provided in the next section.

In its present form, the CCI Bill also envisages the dispute settlement function to be performed by the Communications Dispute Settlement Appellate Tribunal (CAT)

4.2. Regulatory reform under NTP 99

Since the regulatory outcome of the NTP94 has been disappointing, the government proposed new regulatory policies in its NTP99 policy statement.

The regulatory reform introduced by the NTP99 can be summarised as follows:

• Reaffirm the commitment for strong and independent telecom regulator
• Arbitration powers to the regulator in settling disputes between the government and other service providers
• Jurisdiction of licensing and policy making will, however, continue to fall under the government
• Prohibition of the provision of voice services over the Internet Protocol
• Recognition of the need for changes in the existing telecom legislations.

The opening up of the Internet sector set the background to NTP-99, is a major attempt to plug the loopholes in the 1994 policy. Its enunciation of policy objectives is itself a marked improvement. Provision of 'universal service' (including unconnected rural areas, re-targeted for year 2002) is sought to be balanced by the provision of sophisticated telecom services capable of meeting needs of the country's economy. The latter objective is further amplified to include 'Internet' access to all district head quarters (DHQs) by 2000 and providing high speed data and multimedia capabilities to all towns with a population of 200,000 and above by 2002. Apart from a target average penetration of 7 per cent by year 2005 (and 15 per cent by 2010), targets for rural 'tele-density' have been set to increase from the current level of 0.4 per cent to 4 per cent during the same period.

To meet these teledensity targets, an estimated capital expenditure of Rs. 4,000 billion for installing about 130 million lines will be required. Recognizing the role of private investment, NTP-99 envisages multiple operators in the market for various services.

The most important change has been a shift from the existing license fee system to one based on a one-time entry fee combined with revenue share payments.

NTP-99 allows DoT/MTNL to enter as third cellular mobile operators in any service area if they wish to provide these services. To ensure a level playing field, DoT and MTNL will have to pay license fee, but DoT’s license fee will be refunded because it has to meet the Universal Service Obligations. It is worth noting that to the extent that the fee will be specifically refunded to bear the cost of Universal Service Obligation (USO), this aspect should be accounted for when calculating the USO levy and apportioning the revenues from that levy.
5. **The Challenges Ahead**

The emergence of ‘new’ economy as a separate identity in the Indian economy is no doubt a huge boost for generating additional export revenues to achieve a healthy current account balance. The sector, however, is not immune from facing challenges in the future. In the present globalisation era, there is always a threat of competition from other developing countries such as China and South East Asian nations. In this section, an investigation on the challenges has been attempted. Before identifying the challenges and the weaknesses of the Indian economy against its competitors, let us first summarise the strength gained by India so far.

- Telecommunications technology and expanding teledensity found to be the major driver of the emerging ‘new’ economy sector. Indian union and state capital cities where the IT and ITE services industry is based have teledensity of 14 per 100 against the all India density of only 3 per 100. The subscribers for fixed line network increased by 8 folds since 1991, while the cellular phones increased by 30 folds since 1997.

6. **Conclusion**

Telecommunications service in India is an example of a paradox of the 1990s. Despite the telecom policy and telecom regulation being controversial, communication has been the fastest growing sector of the Indian economy. There is still an opportunity to reform and simplify the regulatory framework further and maintain the growth rates during the next decade as seen in the past. What are the lessons from the Indian experience? First, the analysis of the India telecom sector presents a picture of “managed competition”. While the traditional public monopoly is coming to an end, effective competition has been hard to achieve for a number of reasons. The incumbent with an extensive network has retained market power. The number of networks that have come up or are about to come up are limited because of the costs of building the network. The availability of spectrum is a constraint in the market especially for cellular mobile services. Given these circumstances, however,
the expansion of telecommunications services has been phenomenal over the last decade.

Second, new market-based approaches to the supply of telecommunications services have been introduced in India and technological changes have led to cost reduction and expanded scope of product choice. The number of initiatives on the drawing board makes impressive reading and present immense opportunity for the sector and thus for the economy. TRAI has already issued consultation papers on Internet Telephony and Interconnection and opening of international long distance (ILD) services to private competition. These initiatives suggest a greater reliance on market forces than before. As market-based approach to the provision of telecom services has been adopted, the question to be addressed is whether there should be more or less regulatory intervention.

Third, following the widespread adoption of market-based approaches to the supply of telecommunications services, there is also a growing consensus that regulators should not be involved in detailed “management” of the sector. Instead, the regulators’ role is seen to involve maintenance of a regulatory environment conducive to the efficient supply of telecommunications services to the public. Also, while there is likely be an increase in regulatory activity around the time of introduction of competition, the level of regulatory intervention can be expected to reduce once competitive markets are established. Regulation where none is justified can distort or undermine competition.

Finally, under the given market-based approach and the current regulatory framework in place, the telecommunications industry has contributed to establish a ‘new’ sector in the economy driven by the IT/Software and IT enabled services. Within a short period of time, the ‘new’ economy sector has substantially contributed to reversing the age old current account problem and has created hundreds and thousands of jobs in newly established domestic companies and in India based major MNCs. These achievements, however, are not immune from any threat in the future. The major challenges can be identified in terms of India’s image problem to
outside world, gradual withdrawal of tax incentives in place, WTO intervention on behalf of the other member nations and direct competition faced from East and South East Asian nations.

Table 1: Basic telecom information for pre-reform period

| Number of telephone lines as at 31 March 1995 | 9.38 million |
| Installed capacity of telephone lines | 10.00 million |
| Demand for telephones (FY 1995) | 12.50 million |
| Growth in telephone lines (FY 1985 to FY 1994) | 11.8 per cent |
| Growth in telephone demand (FY 1985 to FY 1994) | 12.2 per cent |
| Total workforce (telecom services) | 470,000 |


Table 2: Phone connections and share of main operators between 1996-97 & 1998-99 Operator Connections ('000) Share (%)

<table>
<thead>
<tr>
<th>Operator Connections ('000) Share (%)</th>
<th>Mar-97</th>
<th>Jun-01</th>
<th>Mar-97</th>
<th>Jun-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSNL (all India)</td>
<td>11,530</td>
<td>28,484</td>
<td>79.29</td>
<td>86.01</td>
</tr>
<tr>
<td>MTNL (Mumbai, Delhi)</td>
<td>3,012</td>
<td>4,322</td>
<td>20.71</td>
<td>13.05</td>
</tr>
<tr>
<td>Bharti, (M.P.)</td>
<td>- 122</td>
<td>- 0.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hughes, (Maharashtra).</td>
<td>- 84</td>
<td>- 0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tata, (A.P.)</td>
<td>- 69</td>
<td>- 0.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliance, (Gujarat)</td>
<td>- 0.14</td>
<td>- 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STL, (Rajasthan)</td>
<td>- 13</td>
<td>- 0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HFCL (Punjab)</td>
<td>- 24</td>
<td>- 0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All India</td>
<td>14,542</td>
<td>33,118</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Kathuria (2000) and Tele.net Volume 2 Issue No. 8 August 2001
## Table 3

### List of new Basic service Licenses issued

#### Operator Service Area for which the license have been issued

<table>
<thead>
<tr>
<th>Operator</th>
<th>Service Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliance</td>
<td>A.P., Delhi, Karnataka, Maharashtra, Tamil Nadu, Haryana, Kerala, M.P., Punjab, Rajasthan, U.P. (West), U.P. (East), West Bengal, A&amp;N, Bihar, H.P., Orissa</td>
</tr>
<tr>
<td>Tata</td>
<td>Delhi, Gujarat, Karnataka, Tamil Nadu</td>
</tr>
<tr>
<td>Bharti</td>
<td>Haryana</td>
</tr>
</tbody>
</table>

Source: Tele.net Volume 2 Issue No. 8 August 2001
Table 4
Mobile market share (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>Mar-97</th>
<th>Mar-98</th>
<th>Mar-99</th>
<th>Mar-00</th>
<th>Mar-01</th>
<th>Aug-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Metros (Delhi, Mumbai, Chennai and Kolkata)</td>
<td>325,967 (69)</td>
<td>551,757 (-6)</td>
<td>519,543 (53)</td>
<td>795,931 (71)</td>
<td>1,362,592 (28)</td>
<td>1,750,789</td>
</tr>
<tr>
<td>Rest of India</td>
<td>13,064 (2430)</td>
<td>330,559 (104)</td>
<td>675,903 (61)</td>
<td>1,088,380 (103)</td>
<td>2,214,503 (39)</td>
<td>3,071,398</td>
</tr>
<tr>
<td>All India</td>
<td>339,031 (160)</td>
<td>882,316 (35)</td>
<td>1,195,446 (58)</td>
<td>1,884,311 (90)</td>
<td>3,577,095 (35)</td>
<td>4,822,187</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses show percentage of growth
Source: Kathuria (2000) and Tele.net Volume 3 Issue No. 1 January 2002
Table 5
List of Cellular Service Providers and their Area of Operation

<table>
<thead>
<tr>
<th>Category</th>
<th>City/Circle</th>
<th>Operator1</th>
<th>Operator2</th>
<th>Operator3</th>
<th>Operator4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metros</td>
<td>Delhi</td>
<td>Bharti</td>
<td>Essar</td>
<td>MTNL</td>
<td>Batata</td>
</tr>
<tr>
<td></td>
<td>Mumbai</td>
<td>BPL</td>
<td>MNTL</td>
<td>MTNL</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>Chennai</td>
<td>RPG</td>
<td>Skycell</td>
<td>-</td>
<td>HMTL</td>
</tr>
<tr>
<td></td>
<td>Calcutta</td>
<td>Spice</td>
<td>UMTL</td>
<td>-</td>
<td>Reliance</td>
</tr>
<tr>
<td>A' Circle</td>
<td>Maharashtra</td>
<td>BPL</td>
<td>Birla AT&amp;T</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>Gujarat</td>
<td>Fascel</td>
<td>Birla AT&amp;T</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>A.P.</td>
<td>Tata</td>
<td>Bharti</td>
<td>-</td>
<td>HMTL</td>
</tr>
<tr>
<td></td>
<td>Karnataka</td>
<td>Bharti</td>
<td>Modicom</td>
<td>-</td>
<td>HMTL</td>
</tr>
<tr>
<td></td>
<td>T.N.</td>
<td>BPL</td>
<td>Aircel</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td>B' Circle</td>
<td>Kerala</td>
<td>Escotel</td>
<td>BPL</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>Punjab</td>
<td>Modicom</td>
<td>-</td>
<td>-</td>
<td>Escotel</td>
</tr>
<tr>
<td></td>
<td>Haryana</td>
<td>Escotel</td>
<td>ADL</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>U.P.(W)</td>
<td>Escotel</td>
<td>-</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>U.P.(E)</td>
<td>ADL</td>
<td>Koshika</td>
<td>-</td>
<td>Escotel</td>
</tr>
<tr>
<td></td>
<td>Rajasthan</td>
<td>ADL</td>
<td>Hexacom</td>
<td>-</td>
<td>Escotel</td>
</tr>
<tr>
<td></td>
<td>M.P.</td>
<td>RPG</td>
<td>Reliance</td>
<td>-</td>
<td>Bharti</td>
</tr>
<tr>
<td></td>
<td>W.B.</td>
<td>Reliance</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C' Circle</td>
<td>H.P.</td>
<td>Bharti</td>
<td>Reliance</td>
<td>-</td>
<td>Escotel</td>
</tr>
<tr>
<td></td>
<td>Bihar</td>
<td>Reliance</td>
<td>-</td>
<td>BSNL</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Orissa</td>
<td>Reliance</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Assam</td>
<td>Reliance</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N.E.</td>
<td>Reliance</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Tele.net Volume 3 Issue No. 1 January 2002
### Table 6
Growth in Telecom markets in India (1997-2001)

<table>
<thead>
<tr>
<th>Region</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Metros</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Line</td>
<td>3,955,462</td>
<td>4,581,634</td>
<td>5,131,756</td>
<td>5,828,608</td>
<td></td>
</tr>
<tr>
<td>Growth Rate</td>
<td>16</td>
<td>12</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td>325,967</td>
<td>551,757</td>
<td>519,543</td>
<td>795,931</td>
<td>1,362,592</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>69</td>
<td>-</td>
<td>6</td>
<td>53</td>
<td>71</td>
</tr>
<tr>
<td><strong>All India</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Lines</td>
<td>14,542,651</td>
<td>17,801,696</td>
<td>21,601,489</td>
<td>26,652,135</td>
<td>32,702,229</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>22</td>
<td>21</td>
<td>23</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td>339,031</td>
<td>882,316</td>
<td>1,195,446</td>
<td>1,884,311</td>
<td>3,577,095</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>160</td>
<td>35</td>
<td>58</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

Source: Present study estimate.

### Table 7
‘New Economy’: Export Opportunities (US$ million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Software/IT Exports</th>
<th>Domestic Software Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996-97</td>
<td>1,100</td>
<td>730</td>
</tr>
<tr>
<td>1998-99</td>
<td>2,600</td>
<td>1,560</td>
</tr>
<tr>
<td>2000-01</td>
<td>6,217</td>
<td>2,160</td>
</tr>
<tr>
<td>2002-03*</td>
<td>9,500</td>
<td>2,700</td>
</tr>
</tbody>
</table>

* Projections

Source: Nasscom (2002)
Table 8
Software Exports to Total Exports (%)

<table>
<thead>
<tr>
<th>Items</th>
<th>2001</th>
<th>2002</th>
<th>2003*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Exports</td>
<td>13.80</td>
<td>16.50</td>
<td>18.60</td>
</tr>
<tr>
<td>Other Exports</td>
<td>86.20</td>
<td>83.50</td>
<td>81.40</td>
</tr>
</tbody>
</table>

* Projections
Source: Nasscom (2002)

Table 9
ITES Exports to IT Exports (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>ITE Services</th>
<th>IT Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-00</td>
<td>14.0</td>
<td>86.0</td>
</tr>
<tr>
<td>2000-01</td>
<td>14.5</td>
<td>85.5</td>
</tr>
<tr>
<td>2001-02</td>
<td>19.0</td>
<td>81.0</td>
</tr>
<tr>
<td>2002-03*</td>
<td>24.0</td>
<td>76.0</td>
</tr>
</tbody>
</table>

* Projected
Source: Nasscom (2002)
Table 10
Key Segments of Global ITES/BPO

<table>
<thead>
<tr>
<th>Item</th>
<th>Contact/ Back Office</th>
<th>Transcription Content</th>
<th>Other</th>
<th>Call Centre Operations</th>
<th>Translation Development Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Market *Market Size ($ million, 2002)</td>
<td>8,600</td>
<td>2,000</td>
<td>425</td>
<td>2,200</td>
<td>250</td>
</tr>
<tr>
<td>Indian Market Size ($ml, 2002)</td>
<td>380 (4.5)</td>
<td>600 (30)</td>
<td>32 (7.5)</td>
<td>440 (20)</td>
<td>43 (17)</td>
</tr>
<tr>
<td>Minimum Invest.</td>
<td>$3,000 to $1-2.5ml</td>
<td>$1-2.5ml</td>
<td>$0.5ml</td>
<td>$10ml</td>
<td>$10-15ml</td>
</tr>
</tbody>
</table>


References


The Telecom Regulatory Authority of India (Amendment) Ordinance (2000).

Tele.net Volume 3 Issue No. 1 January 2002