Chapter III
De-regulation of Telecom Services in India
The aim of this Chapter is to analyze the process of de-regulation of telecom services in India. The Chapter traces the path of de-regulation of telecom sector in India starting from the constraints in the pre-liberalization era and looks into the developments in the arena of policy making, particularly National Telecom Policy 1994 and New Telecom Policy 1999. In addition TRAI Act 1997 and its Amendment in the year 2000 have been briefly touched upon as it has been elaborately covered in the next chapter. The critique of the telecom policies has also been attempted.

3.1 SIGNIFICANCE OF TELECOM SECTOR

In most developing countries (including India), economies of scale and political and military sensitivities have made telecommunications a typical public service and natural monopoly. Manufacturing, installation, operations and control functions are generally exercised by government departments or semi autonomous boards or public enterprises. Often, the same authority is also responsible for policy and regulatory functions. Investment in the telecommunication sector yields high returns to the economy as a whole. A rational investment and pricing policies can make telecommunications a profitable enterprise. The sector can also be an important source of revenue for the government by way of license fees, value added tax, general revenue, import duty, income tax, etc.¹

3.2 TELECOM SECTOR IN PRE-LIBERALIZATION ERA

Notwithstanding, a high potential for social and private returns, the telecom sector was characterized by gross under-investment. The sector owing to rapid technological advancements requires high capital intensive investment, which often can not be met from the meager budgetary governmental resources. This resulted in huge demand-supply gap. A new applicant had to wait for several years in order to get a telephone connection. The situation left hardly any option with the customers, but to pay premium in order to get early telecom connections. Severe traffic congestion, high call

failure rate, lack of value-added services all had devastating repercussions on the competitiveness of organizations and industries in a globally integrated world. The availability of telecom services were also skewed with major concentration being in metros and big cities depriving enormous population in rural and backward areas of the benefits originating from telecom sector. In addition there was huge customer dissatisfaction owing to monopolistic character, inadequacy, poor quality and unreliability of services.²

Ashok Desai states that “The Indian Telecommunications industry was a placid backwater till 1992. A government monopoly, it grew steadily but never caught up with the demand. The charges were low, but they only accentuated scarcity and maintained the black-market value of a telephone connection. The service was poor, but there seemed no scope for improvement and no alternative. As a result the industry attracted no intellectual interest.”³

Thus, prior to the 1991-92 economic liberalization, telecommunication services in India were monopoly of the state sector. The era was marked by lack of capital with government, inadequacy of telephone connections, long waiting lists, inefficiency and corruption.

There were several significant factors which limited the development of the telecom sector (See Figure 3.1). Firstly, the enterprises were usually regarded by the government as traditional monopolistic public sector utilities disregarding their commercial nature. They lacked financial and administrative autonomy. The interference of the government in operational issues, frequent changes in the top management and political considerations in tariff policy were the other factors which impeded development of the telecom sector. Secondly, limited budgetary resources of developing countries and competing demands from other sectors, constrains the telecom sector. Thirdly, organization and management of telecommunication enterprises have

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² Ibid., pp. 218-219.
The major Telecom Sector constraints in the Pre-Liberalization Era have been briefly described as under:

1. **Monopolistic Nature**: In the pre-liberalization era, the telecom sector was monopolistic in nature. Owing to this, there was no pressure on its either production or quality of the services being delivered. The sense of competition and urge to innovate was as such missing altogether.

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4 Mishra & Bhat, op. cit., pp. 219-220.
2. **Lacked Financial Autonomy:** The telecom sector prior to liberalization had hardly any financial autonomy. The sector was under the ministerial control and the permission for financial matters had to go through a cumbersome and tardy process, which did not allow the growth of the sector and compromised with the independence of the sector as well.

3. **Lacked Operational Autonomy:** The absolute control of the government in its day to day functioning and decision-making in the era prior to liberalization meant that the operational autonomy was virtually non-existent in the telecom sector.

4. **Budgetary Constraints:** There were always budgetary constraints in the pre-liberalized era as far as the telecom sector was concerned. The limited budget hardly helped in the much needed rapid growth and expansion of the telecom sector. The scarce resources were mainly utilized for the administrative costs and maintenance functions rather than for the developmental needs of the sector.

5. **Competing Demands by Other Sectors:** In the initial few years of the economic growth of the developing countries there are always infinite demands and meager resources through which they can be met. The most challenging part is that all the sectors compete for the major share of these limited resources. In the era prior to liberalization, the telecom sector had to compete with the investments in the social as well as other physical infrastructure resulting in less allocation to it.

6. **Weaknesses in Organization and Management:** The pre-liberalized era also witnessed weaknesses in the organization and management of the telecom sector. The sector failed to recruit and retain personnel with good organizational and management skills.

7. **High Operating Costs:** In the period before liberalization, being a monopoly, there was no emphasis on economy and efficiency in the telecom sector. The operating costs were high as new investments for upgrading the existing infrastructure were withheld owing to budgetary
constraints and operational losses hardly mattered in the absence of any accountability mechanisms in place.

8. **Poor Service Delivery:** In the absence of competition, the telecom sector in the pre-liberalized era was marked by poor service delivery. The shortages, supply-demand gaps, monopolistic nature, less investment in the sector and lack of incentives all contributed to the poor service delivery.

9. **Poor Maintenance:** There was no incentive for maintaining and delivering good quality services to the customers in the telecom sector, in the pre-liberalization era. Fewer resources, lack of incentives, ministerial control, lack of accountability and monopolistic nature all contributed towards poor maintenance of the sector.

Also there were political and legal bottlenecks, and network economies favouring the status quo. First, there was a political bottleneck in terms of the possibility of rent seeking in a sector owned by the government. It was possible to extract rent from the consumer in the telecom sector because the consumer, in the context of the DoT’s monopoly, had neither exit options nor voice. The Indian customer subsidized an overstaffed telecom department with more than 400,000 workers, which was a source of political patronage. In the 1990s, India’s productivity index was 14 telephones per employee, while the same figure was 40 and 80 for Sri Lanka and Malaysia respectively. More than 75 per cent of the assets of the telecom sector had been raised through telephone bills rather than through equity capital. These are just two examples that highlight the excess amount over opportunity cost that the Indian customer was paying because of the DoT’s monopoly. The luxury of economic rents resulting from a monopoly over a sector was not easy to give up due to political control. Second, there were legal biases opposing the birth of competition. At the time that competition was introduced, there was no provision for an independent regulator who could check the excesses of the telecom department. The Indian Telegraph Act (1885) ensured that the Telecom Department was policy-maker, service provider and licensor in one. It could bend licensing norms to favour itself. The Telecom Department used
this Act to oppose the birth of a regulator and fought to keep the regulatory powers with itself. Third, network externalities favoured the status quo. The Telecom Department (DoT) was the owner of the entire telecommunications network of the country at the time of liberalization. Smaller operators had no option but to connect with the DoT’s network. The DoT often tried to negotiate predatory interconnection agreements, which would raise the calling rates of cellphone operators to unsustainable levels. Furthermore, the DoT held the long-distance monopoly for a long time after competition was introduced. This long-distance monopoly was used to subsidize local calls.  

3.3 ECONOMIC REFORMS

From being a pre-dominantly state-controlled economy, India moved toward a more pro-market and open economy during the 1990s spurred initially by an economic crisis and a potential payment default in 1991. The first step was a New Industrial Policy (NIP) issued in August 1991, which removed some controls, such as industrial licensing, that had been a prominent feature of India’s post-independence industrial policy.

Later reforms progressively supported markets and competition through:

(i) Introduction of competition in sectors hitherto reserved for the state,
(ii) Promotion of competition in other sectors,
(iii) Reduced role for the state in areas such as determination of prices and directing investment,
(iv) Lowering tariff and non-tariff barriers to trade,
(v) Reduction of barriers to foreign investment, and
(vi) Liberalization of the means of raising finance, especially from overseas market.  

3.4 NEED FOR TELECOM REFORMS

It is generally held that if the country’s economy has to succeed in an increasingly globalised, competitive and information-based world economy, then telecom facilities must grow, become inexpensive and keep pace with technological developments around the world. The reform in telecommunications is also seen as a catalyst for growth in other sectors leading to overall economic growth.\(^7\)

3.5 DE-REGULATION OF TELECOM SERVICES IN INDIA

The ushering of economic reform process by the Government of India in the early 1990s, initiated intensive policy and structural changes in various economic sectors to enhance the rate of economic growth in a sustained way. The new economic policy focused on liberalization, de-licensing and deregulation. The Government of India acknowledged the need for a world-class telecom network in the country to facilitate global competitiveness and accelerate exports and inflow of foreign direct investment, which in turn would stimulate economic activity. This necessitated telecommunications reforms to introduce competition in the interest of lower costs, lower prices, greater innovation, better service for consumers, and increased investment in the sector.\(^8\)

During post-liberalization period telecommunication services were opened to the private sector. Since the entry of private sector, the telecommunication services have witnessed a phenomenal growth in terms of increase in number of services and service providers. For example in the pre-deregulation period the main service offered by the Department of Telecommunications was basic telephone service. The post-deregulation period witnessed considerable addition of services like electronic mail, voice mail, data services, audio text services, video text services, video conferencing, radio paging, call waiting, call forwarding unconditional, alarm

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8 Rakesh Kapur (1999), Background Paper, Telecom Regulatory Authority of India in Leena Srivastava and S K Sarkar (Ed.) Transition to a Liberalized Environment: Experiences and Issues in Regulation, Tata Energy Research Institute, New Delhi, pp. 321-329
call, outgoing call barring (dynamic lock), three party conferencing services, ringtones, televoting, quiz, etc. In case of service providers also the post-deregulation period, experienced manifold increase. At present around ten players are in the field of basic telephone services, and around twenty-five players, in case of cellular mobile phone services. Needless to mention, prior to deregulation, only one player, i.e. Department of Telecommunications was operating in the market.9

India’s telecommunications reform programme has been underway since the late 1980s when the government’s monopoly in manufacturing telecom equipment was abolished. However, the more substantive reform was the progressive deregulation of the services sector, from a situation where the Government of India’s Department of Telecommunications (DoT) was the policy maker, operator and regulator, all in one. DoT’s success in this role was mixed. The network grew significantly, but in comparison to most countries, India remained far behind with long waiting lists and poor service quality.

The official explanation for the endless waiting lists was that within the triple constraints of domestic equipment-making capacity, foreign exchange and the government budget, it was not possible to produce or buy enough equipment to meet the demand. Investment was part of the government’s Five Year Plans, which gave telephones low priority, classifying them as a luxury. The telephone system began to expand rapidly only in the late 1980s, when ITI-Alcatel factory delivered switches in large enough volumes.10

Telecommunications originally were part of the P&T Ministry. Telegraph lines existed till the 1950s; but gradually the telegraph came to be abandoned and telegrams were transmitted by telephones and teleprinters. Although the Ministry ran two businesses, post and telegraph on the one hand and telephones on the other, the revenue of the two went into and their expenditure came out of the general budget. The postal service was much more widely used than telephones. Although the telephone service was highly profitable, ministers of post and telegraph were always under the temptation

9 Ghuman & Mehta (2005), op. cit.
10 Desai, op.cit., p. 41.
to spend their profits to earn popularity rather than give them up to the general budget. Hence the profits were used to cross-subsidize postal services. There was a long waiting list for telephones (Table 3.1); the telephone department contended that it was because it did not get enough money to invest in expansion.

Table 3.1
Telephone Additions and Waiting List, 1982-92

<table>
<thead>
<tr>
<th>Year Ending 31st March</th>
<th>DELs* (million)</th>
<th>Waiting List (million)</th>
<th>Growth of DELs (%/yr)</th>
<th>Waiting List (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>2.30</td>
<td>0.59</td>
<td>7.0</td>
<td>47.2</td>
</tr>
<tr>
<td>1983</td>
<td>2.47</td>
<td>0.66</td>
<td>7.4</td>
<td>46.6</td>
</tr>
<tr>
<td>1984</td>
<td>2.67</td>
<td>0.74</td>
<td>8.1</td>
<td>44.4</td>
</tr>
<tr>
<td>1985</td>
<td>2.90</td>
<td>0.84</td>
<td>8.6</td>
<td>43.8</td>
</tr>
<tr>
<td>1986</td>
<td>3.17</td>
<td>1.03</td>
<td>9.3</td>
<td>45.8</td>
</tr>
<tr>
<td>1987</td>
<td>3.49</td>
<td>1.12</td>
<td>10.1</td>
<td>42.0</td>
</tr>
<tr>
<td>1988</td>
<td>3.80</td>
<td>1.29</td>
<td>8.9</td>
<td>49.9</td>
</tr>
<tr>
<td>1989</td>
<td>4.17</td>
<td>1.42</td>
<td>9.7</td>
<td>46.1</td>
</tr>
<tr>
<td>1990</td>
<td>4.59</td>
<td>1.71</td>
<td>10.1</td>
<td>48.9</td>
</tr>
<tr>
<td>1991</td>
<td>5.07</td>
<td>1.96</td>
<td>10.5</td>
<td>49.0</td>
</tr>
<tr>
<td>1992</td>
<td>5.81</td>
<td>2.29</td>
<td>14.6</td>
<td>37.1</td>
</tr>
</tbody>
</table>

Source: Department of Telecommunications Annual Reports, Desai, 2006

*DEL stands for Dialed Exchange Lines

It also lagged behind in technology. The 1970s saw the first applications of information technology to telecommunications, in the form of digital switches. They offered more automatic switching and were less susceptible to breakdown. The Indian Telephone Industries (ITI), a Public Sector Undertaking made crossbar exchanges. They were obsolete by the 1970s and the ministry was importing electronic switches. To replace the imports, ITI imported technology from Alcatel CIT in 1982 and set up a factory to produce digital switches (E10B). The technology transfer agreement was renewed in 1991 and 1999, and went on to cover Alcatel’s next-generation

11 Ibid., p. 42.
switch (OCB-283). When Rajiv Gandhi became the Prime Minister in 1984, he was not yet enmeshed in the patronage system run by the P&T bureaucrats and established politicians. In 1984, Sam Pitroda, a telecommunications engineer, investor and entrepreneur returned from the USA and set up the Centre for Development of Telematics (C-DOT), an R&D organization to develop electronic switches. Over the next five years, C-DOT developed switches that were cheap and robust, and did not require air conditioning. Rural Automatic Exchanges (RAX), with a capacity of 200 lines, were developed for use in villages; larger switches with 40,000 lines were developed for small towns. The designs were licensed to a large number of producers within the country. By 2000, switches of C-DOT design accounted for 14.5 million lines – 48 per cent of the total switching capacity. They were also exported, mainly to other developing countries. The same policy of outsourcing was introduced in hardware. The policy of buying equipment only from ITI was abandoned and Department of Telecommunications (DoT) began to buy it from domestic private enterprises. Amongst the 20-odd manufacturers of telephone instruments that came up as a result was Bharti Enterprises (which later became the largest mobile operator) and Shyam Telecom (which took a wireline license for Rajasthan in 1995). Pitroda also got the DoT to give telephones to manned public call offices (PCOs) run by small entrepreneurs; 1.52 million of them – distinguished by an acronym PCO/STD/ISD – were scattered all over India on 31 March 2004.12

Early attempts to reform the services were modest, with the opening of some value-added services such as electronic mail, audio-text, etc. to private sector players. This was followed by an attempt to allow private sector players to enter mobile service sector. This exercise, and litigation that ensued, reflected the first signs of the challenge that lay in ad hoc changes to telecom policy without a clear regulatory framework.

The entry of private capital reflected a political will in favour of private sector participation in India’s telecom sector. This occurred despite the DoT’s displeasure. The process was evolutionary and punctuated by crises. Uncertainty and transaction costs characterized the business environment,

12 Ibid., p. 43.
largely owing to the DoT’s unwillingness to part with its politically mandated privileges. This uncertainty discouraged the foreign investment to a greater extent than domestic investment. The birth and consolidation of the regulator in order to reduce transaction costs for private investors needed both policy and legal changes.\(^\text{13}\)

Telecommunications were given priority over posts during the early 1980s. In the past, postal services were considered necessary, but telecommunications was viewed as being elitist. This began to change in 1980s. First, the Sarin Committee (1981) had noted the undue emphasis on posts within the Ministry of Posts and Telegraphs. It recommended the separation of posts from telegraphs as separate departments within the Ministry of Communications. It had expressed the need for shifting the Indian Telephone Industries from the Ministry of Industry to the Ministry of Posts and Telegraphs, and urged the importation of 100,000 instruments. Second, the plan outlay for telecommunications rose from 2.48 per cent in the Sixth Plan (1980-85) to 5 per cent in the Seventh Plan (1985-90). Planners began viewing telecommunications as an important part of India’s growth strategy.\(^\text{14}\)

The PMO under Rajiv Gandhi was the force behind the New Electronics Policy of 1984, and setting up of the Centre for the Development of Telematics (C-DoT). C-DoT was given funds and autonomy from the DoT, and, was able to attract the best talent from the Indian Institutes of Technology. Private production of C-DoT switches and other end-use equipment was allowed. By 1989, the Electronic Private Automatic Branch Exchange (EPABX) was so successful that 70 per cent of the total manufacturers had licensing arrangements with C-DoT instead of foreign technology sources. The successful manufacture of the RAX switch by private players earned C-DoT the ill-will of DoT. The public sector entity, the Telecommunications Research Centre, which was administered directly by the DoT, could not match C-DoT’s excellence in innovations.\(^\text{15}\)

Also, the DoT was separated from the Department of Posts within the Ministry of Communications (MOC) in 1985. Furthermore, on April 1, 1986 the

\(^{13}\) Mukherji, *op. cit.*, p. 59.
\(^{15}\) *Ibid.*, p. 64.
government created a corporatized Mahanagar Telephone Nigam Limited (MTNL) to serve the metropolitan areas of Delhi and Mumbai (Bombay). Before the creation of MTNL, the DoT within the Ministry of Communications was both service provider and policy-maker. No attempt had earlier been made within the telecom department to create public sector units, which would enjoy a degree of autonomy from the department. This was India's first attempt at separating the telecommunications service provider from the policy-maker.16

The government telecommunications business was headed by a Telecom Board. The rules of appointment and promotion ensured that its members were all government telecommunications engineers, and that they became members only in the last few months of their career when they had neither the knowledge nor the incentive to introduce major improvements. Since the board was an internal committee of the telecommunications department, it was ineffective in dealing with inter-ministerial problems. Pitroda got it replaced in 1989 by a Telecom Commission, which he headed. All its members had the rank of a secretary to the government. It had four members dealing with finance, production, services and technology. Secretaries of the ministries of finance, information technology (IT), industrial policy and planning and the Planning Commission were its ex-officio members. It was authorized to take administrative and financial decisions. Pitroda wanted it to be manned by experts from outside. But Rajiv lost the general elections in 1989 and ceased to be prime minister. With is fall, Pitroda lost influence, came into conflict with the telecommunication ministers that followed, and resigned in 1991. After his departure, the Telecom Commission too was captured by senior members of the Indian Telecommunications Service (ITS); it became very much like the old Telecom Board.17

Up to 1991, the Department of Posts and Telegraphs and its successor, the DoT under the Ministry of Communications, had a monopoly, enabled by the Indian Telegraphs Act, 1885, which entitled the government of India to be the sole agency to operate, or license others to operate,

16 Ibid., loc. cit.
telecommunications services. Annual reports of DoT (and its predecessors) justified the monopoly on the grounds of equity or meeting universal service obligations (USO). But DoT's record hardly scintillates: its own reports indicate that teledensity was an abysmal 0.8 in 1990; only 140,000 out of 576,000 villages had a phone connection; even when there was a connection, in many cases it was just one connection of low quality. Wait times for new connections extended to seven to eight years, and quality of service was low. Access charges and long-distance tariffs were among the highest in the world. The only positive developments during this period were the success of the Centre for the Development of Telematics in developing cheap rural branch exchanges in the mid-1980s and the installation, also during the 1980s, of a wide network of public call offices (PCOs) all over the country, including rural areas with long-distance direct dialing facility. By 1999, there were 515,000 PCOs in the network.18

There were attempts at improving efficiency. Two corporate entities were created from DoT in the mid-1980s: Mahanagar Telephone Nigam Ltd. (MTNL) for providing services in the metropolitan cities of Mumbai and Delhi, and Videsh Sanchar Nigam Ltd. (VSNL), for international long-distance services. Both firms were later listed on the stock exchanges through a minority divestment.

The changed mindset of the government was reflected, though with less intensity, in telecommunication, after the general reforms of 1991. The private sector was allowed into telecommunications equipment-manufacture in 1991 and into value-added services such as fax, E-mail, and radio paging in 1992-1993. Thus, until the first National Telecom Policy was announced in 1994 (NTP-1994), a limited liberalization took place, reflecting the thrust of general economic reforms that liberalized the manufacturing sector but not the services sector. Although the private sector was licensed to provide cellular services from 1992, this was not implemented by any private firm until NTP-1994 owing to disputes over license fees (the successful bidders having overbid) and interconnection charges.

Meanwhile, the tariff structure continued to penalize long-distance voice and data transmission, and the power of the unions led to resistance on technological progress. The members of unions enjoyed the special protection of being government employees: under Article 14(2) of the Indian Constitution, they were virtually immune from prosecution. DoT's role as dominant equipment manufacturer, sole service provider, and sole rule-maker thus created an institutional structure within which it was the only participant. The other arms of the executive did not intervene because it generated profits that helped subsidize other government departments. Politicians ensured that DoT set tariff structures to provide cross-subsidies for local service. While there were external bodies for grievance redressals such as consumer courts, these were ineffective due to the general problems of the Indian legal system.19

3.6 TELECOM RESTRUCTURING COMMITTEE (TRC) OR ATHREYA COMMITTEE

In 1990, India got into a serious payments crisis. Financial support was available from the International Monetary Fund (IMF) and the World Bank, but it involved conditionalities that the two minority governments could not accept or could not muster support for in Parliament. So it was after the taking over of a Congress government in June 1991 that the support programme was agreed upon. First came an IMF standby loan, whose primary conditions were steps for reducing fiscal deficit and improving the balance of payments. That borrowing gave the government breathing space to negotiate larger loans with longer repayment periods from the World Bank.

The modus operandi of these loans was that the government set up committees to recommend reforms; their recommendations formed the basis for the conditionalities that went into the loan agreement. In December 1990 – before the Congress government came in, but while the government was in crisis and talking to the IMF and the World Bank – the Ministry of Communications set up a committee under M.B. Athreya, an outside

19 Ibid., p. 48.
management expert, on the reorganization of DoT. The Prime Minister's Office (PMO) had first approached Citibank for advice. Citibank had suggested that the PMO turn to M.B. Athreya, a scholar with a Ph.D. from Harvard Business School, with teaching and consulting experience as a professor at the Indian Institute of Management in Kolkata.

The Telecom Restructuring Committee (TRC), better known as the Athreya Committee was set up to get an independent view on restructuring DoT. The TRC report was available in March 1991. The Athreya Committee (TRC) opined that telecommunications in India needed three kinds of institutions: policy making, regulatory, and field-oriented. The Telecom Commission could perform the policy role, an independent regulator was needed to promote competition; and the field role within the government, which was the service provider’s role, could be played by the DoT. The TRC suggested corporatization of the telecom department’s service arm and sequenced liberalization of cellular and value-added services, followed by the liberalization of basic services, which were the local, long-distanced and international operations of the telecom department.

The Committee’s report made three significant contributions to thinking about demonopolization in the telecom sector. First, it noted that the sector needed private capital, which could be allowed first in areas where the opposition of the DoT was likely to be the least. Secondly, it pointed out that the service provider and the policy-maker roles needed to be separated. Thirdly, it argued the case for a regulator, which would function as a referee to even out the operational circumstances in favour of private capital, in sector where the regulatory and network advantages were overwhelmingly with state capital. The report was opposed by the three members of the telecom department but had the support of the Planning Commission, the Finance Ministry, the DoE, and the Ministry of Industry.

The Committee was unanimous on the following proposals:

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20 Desai, op. cit., pp. 45-46.
21 Mukherji, op. cit., p. 66.
22 Ibid., loc. cit.
(a) The creation of MTNL was a bad idea and it should be remerged into the parent organization.

(b) The policy-making role of the DoT must be separated from the operational role.

(c) The management should be professionalized, workers retrained and the organization decentralized.

(d) Going forward from the public telephone shops run by individual entrepreneurs, they should be allowed to set up closed user groups and serve apartment buildings or neighbourhoods.

(e) Value-added services should be thrown open to private enterprise and cooperatives.

On the crucial question of reorganization, however, the committee split. The majority recommended that whilst the Telecom Commission should look after the policy, the business operations of DoT should be placed in the hands of five corporations – four with offices in the four metros to look after the zonal operations and a fifth one for international business – overseen by a holding company called India Telecom Operating Corporation. Shares in the corporation should be sold to the employees, government financial institutions and the public. Privatization was not mentioned. In a compromise with the World Bank, the government at that time was selling majority stakes in public enterprises to the public; a majority in the Athreya Committee proposed the same thing for telecommunications. But it ran into strong opposition from the members who came from DoT. In the end, the proposals of the Athreya Committee came to be seen within the DoT as subversive ideas coming from outside ‘experts’, and were buried.

The Finance Ministry was keen that the Communications Ministry should agree on conditionalities with the World Bank and pave the way for a loan for the telephone sector. However, the World Bank’s preference for private entry met with strong resistance in the ruling Congress party; it had built up the socialist system, and many Congressmen were loyal to this heritage, which involved the considerable patronage that they enjoyed when in power. The World Bank could make no headway in its negotiations with the
communications ministry; the interests that coalesced around the government telecommunication monopoly – the workers’ and officers’ unions and the Congress ministers – would not hear of private entry.23

The Communications Ministry refused to allow private investment into any of the wireline telephone services; nor did it agree to corporatization of the telecommunications business and divestment of a minority stake. But it did accept the Athreya Committee’s recommendation that private and cooperative enterprises should be allowed into value-added services – electronic and voice mail, data, audio and video-text messages, videoconferencing, radio paging and mobile telephones. It regarded mobile telephone service as value-added service – in other words, it believed that most calls to and from mobile telephones would be with its own wireline subscribers, and could therefore be used to make additional profits.

The strongest argument for private entry into mobile telephone operations were the long waiting lists. During 1989-90, 415,000 new lines were given; at that rate of installation, it would have taken over four years to exhaust the waiting list of 1.7 million. To counter the looming threat of private entry, DoT accelerated the rate of installation to 987,000 in 1992-93 and 1.229 million in 1993-94; but the waiting lists failed to shorten. As more telephones were released, more, more potential applicants were encouraged, more applied, and the waiting period required for a telephone showed only a slight decline.24

3.7 NATIONAL TELECOMMUNICATIONS POLICY, 1994

In 1994, the Government of India announced the National Telecom Policy (NTP), which defined certain important objectives, including availability of telephones on demand, the provision of world-class services at reasonable prices, ensuring India’s emergence as a major manufacturing/export base for telecom equipment and universal availability of basic telecom services to all

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23 Desai, op. cit., pp. 46-47.
24 ibid., loc. cit.
villages. It also announced a series of specific targets to be achieved by 1997.\(^\text{25}\)

The salient features of the Policy\(^\text{26}\) are as under:

(a) **Introduction**

The new economic policy adopted by the Government aims at improving India's competitiveness in the global market and rapid growth of exports. Another element of the new economic policy is attracting foreign direct investment and stimulating domestic investment. Telecommunication services of world class quality are necessary for the success of the policy. It is, therefore, necessary to give the highest priority to the development of telecom services in the country.

(b) **Objectives**

The objectives of the New Telecom Policy are as follows:

(i) The focus of the Telecom Policy shall be telecommunication for all and telecommunication within the reach of all. This means ensuring the availability of telephone on demand as early as possible.

(ii) Another objective will be to achieve universal service covering all villages as early as possible. What is meant by the expression universal service is the provision of access to all people for certain basic telecom services at affordable and reasonable prices.

(iii) The quality of telecom services should be of world standard. Removal of consumer complaints, dispute resolution and public interface will receive special attention. The objective will also be to provide widest permissible range of services to meet the customer's demand at reasonable prices.

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Taking into account India’s size and development, it is necessary to ensure that India emerges as a major manufacturing base and major exporter of telecom equipment.

The defence and security interests of the country will be protected.

(c) Revised Targets

In view of the recent growth of the economy and the reassessed demand, it is necessary to revise the VIII Plan targets as follows:

a. Telephone should be available on demand by 1997.

b. All villages should be covered by 1997.

c. In the urban areas a PCO should be provided for every 500 persons by 1997

d. All value-added services available internationally should be introduced in India to raise the telecom services in India to international standard well within the VIII Plan period, preferably by 1996.

(d) Resources for the Revised Targets

The rapid acceleration of Telecom services visualized above would require supplementing the resources allocated to this sector in the VIII plan. The total demand (working connections + waiting list) showed a rise of nearly 50% from 7.03 million on 1.4.1992 to 10.5 million on 1.4.1994 over a three year period. If the demand grows at the same rate for the next three years, it would touch about 15.8 million by 1.4.1997. The actual rate of growth is likely to be higher as the economy is expected to grow at a faster pace. Achieving the target of giving telephone on demand by 1997 would thus imply releasing about 10 million connections during the VIII Plan as against the existing target of 7.5 million. Release of 2.5 million additional lines alone would require extra resources to the tune of Rs. 11,750 crores at a unit cost of Rs. 47,000 per line at 1993-94 prices. To this must be added the requirement on account of additional rural connections of Rs. 4,000 crores.

Even with the comparatively modest targets of the VIII Plan, as originally fixed, there is a resource gap of Rs. 7,500 crores. The additional resources required to achieve the revised targets would be well over Rs.
23,000 crores. Clearly this is beyond the capacity of Government funding and internal generation of resources. Private investment and association of the private sector would be needed in a big way to bridge the resource gap. Private initiative would be used to complement the Departmental efforts to raise additional resources both through increased international generation and adopting innovative means like leasing, deferred payments, BOT, BLT, BTO etc.

(e) Hardware

With the objective of meeting the telecom needs of the country the sector of manufacture of telecom equipment has been progressively relicensed. Substantial capacity has already been created for the manufacture of the necessary hardware within the country. The capacity for manufacture of switching equipment, for example, exceeded 1.7 million lines/year in 1993 and is projected to exceed 3 million line/year by 1997. The capacity for manufacture of telephone instruments at 8.4 million units per year is far in excess of the existing or the projected demand. Manufacturing capacities for wireless terminal equipment, Multi Access Radio Relay (MARR) for rural communication, optical fibre cables, underground cables etc. have also been established to take care of the requirements of the VIII Plan. With the revision of the targets demand would firm up and there would be an incentive to expand the capacities to meet the extra requirement.

(f) Value Added Services

In order to achieve standards comparable to the international facilities, the sub-sector of value-added services was opened up to private investment in July 1992 for the following services:

a. Electronic Mail
b. Voice Mail
c. Data Services
d. Audio Text Services
e. Video Text Services
f. Video Conferencing
g. Radio Paging
h. Cellular Mobile Telephone
In respect of the first six of these services companies registered in India are permitted to operate under license on non-exclusive basis. This policy would be continued. In view of the constraints on the number of companies that can be allowed to operate in the area of Radio Paging and Cellular Mobile Telephone Service, however, a policy of selection is being followed in grant of licenses through a system of tendering. This policy will also be continued and the following criteria will be applied for selection:

a. Track record of the company;
b. Compatibility of the technology

c. Usefulness of the technology being offered for future development;
d. Protection of national security interests;
e. Ability to give the best quality of service to the consumer at the most competitive cost; and
f. Attractiveness of the commercial terms to the Department of Telecommunications.

(g) Basic Services

With a view to supplement the effort of the Department of Telecommunications in providing telecommunication services to the people, companies registered in India will be allowed to participate in the expansion of the telecommunication network in the area of basic telephone services also. These companies will be required to maintain a balance in their coverage between urban and rural areas. Their conditions of operation will include agreed tariff and revenue sharing arrangements. Other terms applicable to such companies will be similar to those indicated above for value-added services.

(h) Pilot Projects

Pilot projects will be encouraged directly by the Government in order to access new technologies, new systems in both basic as well as value-added services.
(i) Technology and Strategic Aspects

Telecommunication is a vital infrastructure. It is also technology intensive. It is, therefore, necessary that the administration of the policy in the telecom sector is such that the inflow of technology is made easy and India does not lag behind in getting the full advantage of the emerging new technologies. An equally important aspect is the strategic aspect of telecom, which affects the national and public interests. It is, therefore, necessary to encourage indigenous technology, set up a suitable funding mechanism for indigenous R&D so that the Indian Technology can meet the national demand and also compete globally.

(j) Implementation

In order to implement the above policy, suitable arrangements will have to be made (a) protect and promote the interests of the consumers and (b) ensure fair competition.

3.8 CRITIQUE OF NTP -1994

The policy contained certain important objectives; however, they were criticized for being less consequential and unattainable. The policy did not envisage any substantial change in the institutional structure. For the first time, the policy talked about private sector participation in basic services. But the approach of NTP-1994 was that the private sector would supplement DoT (rather than compete) in providing telecommunications services, on such terms as DoT laid down. There was no institutional structure to define these relationships or to have a body for settlement of disputes. Although the policy did not explicitly say so, the government made it clear that the private sector would be allowed only in local services (which were loss-making due to the cross-subsidy) and not in the lucrative long-distance sector. This almost ensured that no private sector player would be able to enter the field and pose any meaningful competitive threat to DoT. There was no regulatory mechanism put in place to ensure fair competition or prevent unfair exploitation of DoT’s dominant position. DoT thus continued to be the monopoly in basic telecommunications. DoT itself, an institution, did not have
the capability either to build or even to operate such a vastly increased network by 1997 as was envisaged by NTP-1994. The private sector was envisaged as aiding resource generation, but under the framework offered by NTP-1994, it was difficult to see how the private sector would find it worthwhile to make any substantial investments. Foreign service providers were not allowed. A major failure of NTP-1994 was its not addressing the issue of regulatory authority. Although the document talks of consumer complaints and dispute resolution receiving special attention, there was no mention of an institutional arrangement for achieving this objective. DoT itself would continue to be the regulator and dispute settler.27

The single most important achievement of the NTP was the opening up of basic services to private operators. However, the NTP of 1994 failed to suggest the need for a regulator. Absence of an impartial regulator would aid the predatory activities of the telecom department. The DoT would be in the enviable position of being policy-maker, adjudicator and service provider in the area of its operations. The NTP of 1994 thus provided for an uncertain and litigious business environment.28

The National Telecom Policy defined certain important objectives, including availability of telephone on demand, provision of world class services at reasonable prices, ensuring India’s emergence as major manufacturing / export base of telecom equipment and universal availability of basic telecom services to all villages along with a series of specific targets to be achieved by 1997. As against the NTP 1994 target of provision of 1 PCO per 500 urban population and coverage of all 6 lac villages, DoT has achieved an urban PCO penetration of 1 PCO per 522 and has been able to provide telephone coverage to only 3.1 lac villages. As regards provision of total telephone lines in the country, DoT has provided 8.73 million telephone lines against the eighth plan target of 7.5 million lines.

NTP 1994 also recognised that the required resources for achieving these targets would not be available only out of Government sources and concluded that private investment and involvement of the private sector was

27 Dossani and Manikutty, op. cit., p. 49.
required to bridge the resource gap. The Government invited private sector participation in a phased manner from the early nineties, initially for value added services such as Paging Services and Cellular Mobile Telephone Services (CMTS) and thereafter for Fixed Telephone Services (FTS). After a competitive bidding process, licenses were awarded to 8 CMTS operators in the four metros, 14 CMTS operators in 18 state circles, 6 BTS operators in 6 state circles and to paging operators in 27 cities and 18 state circles. VSAT services were liberalised for providing data services to closed user groups. Licences were issued to 14 operators in the private sector out of which only nine licencees are operational. The Government has recently announced the policy for Internet Service Provision (ISP) by private operators and has commenced licensing of the same. The Government has also announced opening up of Global Mobile Personal Communications by Satellite (GMPCS) and has issued one provisional license. Issue of licenses to other prospective GMPCS operators is under consideration.

The Government recognized that the result of the privatization has so far not been entirely satisfactory. While there has been a rapid rollout of cellular mobile networks in the metros and states with currently over 1 million subscribers, most of the projects today are facing problems. The main reason, according to the cellular and basic operators, has been the fact that the actual revenues realized by these projects have been far short of the projections and the operators are unable to arrange financing for their projects. Basic telecom services by private operators have only just commenced in a limited way in two of the six circles where licenses were awarded. As a result, some of the targets as envisaged in the objectives of the NTP 1994 have remained unfulfilled. The private sector entry has been slower than what was envisaged in the NTP 1994.29

3.9 ABSENCE OF REGULATOR

Soon after the announcement of NTP-1994 in January 1995, the government invited tenders from private sector operators to participate in basic services. An important objective seems to have been to maximize

revenues for the state since the highest bidders would be chosen (although
the criteria for selection were not publicly specified). The continued absence
of a regulator meant that DoT was charged with selecting (and, later,
regulating) its own competitors. An additional problem was that DoT, unlike an
independent regulator, was subject to political influences in its choice.

The terms of licensure did not include qualifying terms for bidders
(such as net worth requirements) nor penalty clauses for non-compliance.
Even such clauses that existed were weak and were challenged later in the
courts on count or other. Had there been a strong regulatory authority,
perhaps the contracts would have been drafted better, and compliance
enforced.30

The need for a regulator had become clear by 1996. Without a
regulator to care for the interests of investors, DoT as policy-maker-cum-
service-provider would have the incentive to thwart every chance of
profitability of the private investor. It was politically very difficult to produce a
legal document supporting the creation of a regulator in the telecom sector.

The Cabinet had taken a decision in May 1995 to set up a regulator.
The Congress Party had delayed the implementation of this cabinet decision.
Two public interest suits filed in the Supreme Court challenging privatization
without regulation were dismissed in 1996 after assurances from the
government that such an authority would be formed through a presidential
ordinance. After much debate, parliament finally passed the TRAI Bill in
February 1997.31

The Telecom Regulatory Authority of India (TRAI) was constituted in
1997 under “The Telecom Regulatory Authority of India Act, 1997”, dated 28th
March, 1997. Its organization and working has been dealt elaborately in the
next chapter.

3.10 NEW TELECOM POLICY, 1999

The Government of India recognized that provision of world class
telecommunications infrastructure and information was the key to rapid

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30 Dossani and Manikutty, op. cit., pp. 50-51.
31 Mukherji, op. cit., p. 70.
economic and social development of the country. It was critical not only for the
development of the Information Technology industry, but also had widespread
ramifications on the entire economy of the country. It was also anticipated that
going forward, a major part of the GDP of the country would be contributed by
this sector. Accordingly, it was of vital importance to the country that there be
a comprehensive and forward looking telecommunications policy which
creates an enabling framework for development of this industry.

In addition to some of the objectives of NTP 1994 not being fulfilled,
there were also far reaching developments in the recent past in the telecom,
IT, consumer electronics and media industries world-wide. Convergence of
both markets and technologies was a reality that was forcing realignment of
the industry. At one level, telephone and broadcasting industries were
entering each other’s markets, while at another level; technology was blurring
the difference between different conduit systems such as wireline and
wireless. As in the case of most countries, separate licences were issued in
our country for basic, cellular, ISP, satellite and cable TV operators each with
separate industry structure, terms of entry and varying requirement to create
infrastructure. However, this convergence now allowed operators to use their
facilities to deliver some services reserved for other operators, necessitating a
re-look into the existing policy framework. The new telecom policy framework
was also required to facilitate India’s vision of becoming an IT superpower and
develop a world class telecom infrastructure in the country.

The most important landmark in telecom reforms came with the New
Telecom Policy 1999 (NTP-1999), which may be termed the third generation
of reforms. NTP-1999 was not just a policy document. It reflected a new
philosophy, a new vision, a new direction, and a new commitment. The
government had undertaken its implementation with utmost earnestness, in
letter and spirit. Its theme was to usher in full competition through unrestricted
private entry in almost all service sectors unless restricted by spectrum
availability, with the full protection of a strong regulator. Its purposes were to
manage the imminent convergence of various transmission media that
technological change had wrought and to strengthen the still somewhat weak
presence of the private sector. NTP-1999 allowed existing private service
providers to migrate from the earlier fixed license-fee regime to revenue-sharing of licensee revenue, while duopoly rights were discontinued in order to allow for unlimited competition. It stated that the private sector may provide domestic long-distance and (from April 2002) international long-distance voice services, with no limit on the number of participants. Wireless-in-local-loop (WLL)-based limited mobility was allowed for basic service providers. Data services were fully opened to the private sector. Cellular service providers were permitted to carry their own long-distance traffic within their service area. The duopoly in cellular service was to be augmented by allowing the public sector entities in basic service provision to provide cellular services, and a fourth cellular license was to be issued. The licensing and service provision functions of government were fully separated, and the later was corporatized. There was no restriction on the number of global mobile personal communication services (GMPCS) licenses, but the gateways for the GMPCS were to be located in India. A National Frequency Allocation Plan (NFAP-2000) came into force on January 1, 2000. The Indian Telegraph Act 1885 was reviewed.  

The salient features of the New Telecom Policy (NTP) -1999 are as under:

(a) Objectives of the New Telecom Policy, 1999

(i) Access to telecommunications is of utmost importance for achievement of the country’s social and economic goals. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the telecom policy;

(ii) Strive to provide a balance between the provision of universal service to all uncovered areas, including the rural areas, and the provision of high-level services capable of meeting the needs of the country’s economy;

(iii) Encourage development of telecommunication facilities in remote, hilly and tribal areas of the country;

(iv) Create a modern and efficient telecommunications infrastructure taking into account the convergence of IT, media, telecom and consumer electronics and thereby propel India into becoming an IT superpower;

(v) Convert PCO's, wherever justified, into Public Teleinfo centres having multimedia capability like ISDN services, remote database access, government and community information systems etc;

(vi) Transform in a time bound manner, the telecommunications sector to a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players;

(vii) Strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities;

(viii) Achieve efficiency and transparency in spectrum management;

(ix) Protect defence and security interests of the country; and

(x) Enable Indian Telecom Companies to become truly global players.

(b) Targets of the New Telecom Policy 1999

In line with the above objectives, the specific targets that the NTP 1999 seeks to achieve are:

(i) Make available telephone on demand by the year 2002 and sustain it thereafter so as to achieve a teledensity of 7 by the year 2005 and 15 by the year 2010;

(ii) Encourage development of telecom in rural areas making it more affordable by suitable tariff structure and making rural communication mandatory for all fixed service providers;

(iii) Increase rural teledensity from the current level of 0.4 to 4 by the year 2010 and provide reliable transmission media in all rural areas;

(iv) Achieve telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002;
(v) Provide Internet access to all district headquarters by the year 2000; and
(vi) Provide high-speed data and multimedia capability using technologies including ISDN to all towns with a population greater than 2 lakh by the year 2002.

(c) New Policy Framework

The New Policy framework must focus on creating an environment, which enables continued attraction of investment in the sector and allows creation of communication infrastructure by leveraging on technological development. Towards this end, the New Policy Framework would look at the telecom service sector as follows:

- Cellular Mobile Service Providers, Fixed Service Providers and Cable Service Providers, collectively referred to as ‘Access Providers’
- Radio Paging Service Providers
- Public Mobile Radio Trunking Service Providers
- National Long Distance Operators
- International Long Distance Operators
- Other Service Providers
- Global Mobile Personal Communication by Satellite (GMPCS) Service Providers
- V-SAT based Service Providers.

(d) Restructuring of DoT

World-wide, the incumbent, usually the Government owned operator plays a major role in the development of the telecom sector. In India, DoT is responsible for the impressive growth in number of lines from 58.1 lakhs on April 1, 1992 to 191 lakhs in December 1998, showing CAGR of 20%. DoT is expected to continue to play in important, and indeed, dominant role in the development of the sector. Currently, the licensing, policy making and the service provision functions are under a single authority. The Government has decided to separate the policy and licensing functions of DoT from the service
provision functions as a precursor to corporatisation. The corporatisation of DoT shall be done keeping in mind the interests of all stakeholders by the year 2001. All the future relationship (competition, resource raising etc.) of MTNL / VSNL with the corporatised DoT would be based on best commercial principles. The synergy of MTNL, VSNL and the corporatised DoT would be utilised to open up new vistas for operations in other countries.

(e) Spectrum Management

With the proliferation of new technologies and the growing demand for telecommunication services, the demand on spectrum has increased manifold. It is therefore, essential that spectrum be utilised efficiently, economically, rationally and optimally. There is a need for a transparent process of allocation of frequency spectrum for use by a service and making it available to various users under specific conditions. The National Frequency Allocation Plan (NFAP) was last established in 1981, and has been modified from time to time since. With the proliferation of new technologies it is essential to revise the NFAP in its entirety so that it could become the basis for development, manufacturing and spectrum utilization activities in the country amongst all users. The NFAP is presently under review and the revised NFAP-2000 would be made public by the end of 1999, detailing information regarding allocation of frequency bands for various services, without including security information. NFAP shall be reviewed no later than every two years and shall be in line with radio regulations of International Telecommunication Union.

Relocation of existing Spectrum and Compensation:

(i) Considering the growing need of spectrum for communication services, there is a need to make adequate spectrum available.

(ii) Appropriate frequency bands have historically been assigned to defence & others and efforts would be made towards relocating them so as to have optimal utilisation of spectrum. Compensation for relocation may be provided out of spectrum fee and revenue share levied by Government.

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(iii) There is a need to review the spectrum allocations in a planned manner so that required frequency bands available to the service providers.

There is a need to have a transparent process of allocation of frequency spectrum which is effective and efficient. This would be examined further in the light of ITU guidelines. For the present, the following course of action shall be adopted:

(i) Spectrum usage fee shall be charged.

(ii) Setting up an empowered Inter-Ministerial Group to be called as Wireless Planning Coordination Committee (WPCC) as part of the Ministry of Communications for periodical review of spectrum availability and broad allocation policy.

(iii) Massive computerisation in the WPC Wing will be started during the next three months time so as to achieve the objective of making all operations completely computerised by the end of year 2000.

(f) Universal Service Obligation

The Government is committed to provide access to all people for basic telecom services at affordable and reasonable prices. The Government seeks to achieve the following universal service objectives:

(i) Provide voice and low speed data service to the balance 2.9 lakh uncovered villages in the country by the year 2002.

(ii) Achieve Internet access to all district head quarters by the year 2000.

(iii) Achieve telephone on demand in urban and rural areas by 2002

The resources for meeting the USO would be raised through a ‘universal access levy’ which would be a percentage of the revenue earned by all the operators under various licences. The percentage of revenue share towards universal access levy would be decided by the Government in consultation with TRAI. The implementation of the USO obligation for rural / remote areas would be undertaken by all fixed service providers who shall be reimbursed from the funds from the universal access levy. Other service
providers shall also be encouraged to participate in USO provision subject to technical feasibility and shall be reimbursed from the funds from the universal access levy.

(g) Role of Regulator

The Telecom Regulatory Authority of India (TRAI) was formed in January 1997 with a view to provide an effective regulatory framework and adequate safeguards to ensure fair competition and protection of consumer interests. The Government is committed to a strong and independent regulator with comprehensive powers and clear authority to effectively perform its functions.

Towards this objective the following approach will be adopted:

(i) Section 13 of The TRAI Act gives adequate powers to TRAI to issue directions to service providers. Further, under Section 14 of the Act, the TRAI has full adjudicatory powers to resolve disputes between service providers. To ensure a level playing field, it will be clarified that the TRAI has the powers to issue direction under Section 13 to Government (in its role as service provider) and further to adjudicate under Section 14 of the Act, all disputes arising between Government (in its role as service provider) and any other service provider.

(ii) TRAI will be assigned the arbitration function for resolution of disputes between Government (in its role as licensor) and any licensee.

(iii) The Government will invariably seek TRAI's recommendations on the number and timing of new licences before taking decision on issue of new licenses in future.

(iv) The functions of licensor and policy maker would continue to be discharged by Government in its sovereign capacity. In respect of functions where TRAI has been assigned a recommendatory role, it
would not be statutorily mandatory for Government to seek TRAI's recommendations.34

(h) Other Salient Features:

(i) Private operators would be made to pay a lump sum entry fee, to be determined by TRAI. Once they had paid it and thus qualified to continue service, they would be charged a proportion of their revenue, also to be recommended by TRAI.

(ii) The term of the private cellular and wireline licenses would be extended to 20 years.

(iii) Under the old policy, private operators were allowed to offer service within the circle for which they had a license. If their own facilities did not enable them to connect two subscribers within the circle, the operators had to use the DoT network. Thus DoT had a monopoly of this intra-circle traffic. Under the new policy, they were to be allowed to use any operator to carry this traffic. They would also be allowed to carry long-distance traffic within their license area.

(iv) The government intended to produce private competition in domestic long-distance traffic from 1 January 2000 (later postponed to 2001). At that point, private operators would be allowed to carry intra-circle long-distance calls for themselves and for any other operator; and they would be permitted to deal directly with VSNL for international traffic, without having to go through the DoT network.

(v) Cellular operators would be allowed to take licenses for any number of circles. This implicitly allowed mergers and acquisitions as well as other alliances between cellular operators.

(vi) Wireline operators would be allowed to offer WLL cellular service.

(vii) DoT (and MTNL) would be allowed to offer WLL cellular service all over the country. They would also pay the proportional charge on revenue that the private operators would pay, instead of license fee, but it would be given back to them.

34 Ibid.
Although the government reserved the right to grant licenses and allocate spectrum, it promised to consult TRAI before deciding on these matters. (The government issued one more private operator’s license in each circle, bringing the number of competitors to four).

The policy and licensing functions of DoT would be separated from the service functions, and the latter corporatized.

Spectrum allocation had last been done in 1981. A new Wireless Planning Coordination Committee would be set up to review the allocation every two years.

DoT was supposed to connect villages but did not fulfill its targets; private wireline operators were supposed to install a certain proportion of their connections in villages but did not. The policy proposed the setting up of a cross-subsidy from other telecommunications subscribers to operators who connected the remaining villages.

The TRAI Act of 1997 had given powers to TRAI to give directions to operators and adjudicate disputes between them. DoT had contested these powers in court and won; in effect, it had freed itself of TRAI’s regulation. The 1999 policy restored TRAI’s regulatory power over DoT.\(^{35}\)

### 3.11 CRITIQUE OF NTP-1999

The New Telecom Policy of 1999 is one of the better public policy documents in the country, which took the interests of all stakeholders into account. It received widespread acceptance as a document which attempted to even the playing field for investors while keeping the DoT’s essential role intact. It made serious attempt to resolve the problems arising from the lack of a distinction between the policy maker and service provider, especially in relation to licensing issues.\(^{36}\)

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36 Mukherji, *op. cit.*, p. 79.
The New Telecom Policy 1999 reflected the political influence of the private telecommunications operators and proposed a bailout formula for them. It also proposed a notional separation of telecommunications policy making from the government’s telecommunications business. It sought to restore TRAI’s power to discipline the incumbent.37

In early 2000 the government issued an ordinance to amend the TRAI Act 1997. This Ordinance too has been discussed upon in the next chapter.

3.12 PHENOMENAL GROWTH RATE OF TELECOM SECTOR

In the recent past, the telecom sector has entered a range of high rate of growth (i.e. 35-40 percent). The total number of telephones (basic and mobile) rose from 22.8 million in 1999 to more than 125 million at the end of December 2005, which makes India’s telephone network as one of the largest in the world. While 21.83 million telephones were added during 12 months of 2004-05, the first nine months saw an addition of 27.47 million phones. Overall, tele-density has risen from a mere 2.32 in 1999 to 11.32 in December, 2005. It has been observed that the share of private sector in the telecom services has been increasing over the years. During 1999, both mobile phones and the private sector separately accounted for only 5 per cent of the total number of phones. However, in December 2005, the shares of mobile phones and the private sector in total phones were 61.97 per cent and 54.45 per cent, respectively.38 In the new connections, the private sector claims around 77 percent share.39

The total subscriber base (both wireless and wireline) of telecom sector in India during the financial year 2007-08 crossed 300 million mark with 300.49 million subscriber as on 31st March 2008. During the period, India became the second largest wireless network in the world after China by overtaking USA.40 The figure for 1997 was only 14.88 million. The growth of

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37 Desai, op. cit., p. 58.
40 Telecom Regulatory Authority of India (2008a), Annual Report 2007-08, New Delhi, October, p. 11
subscriber base during the past decade (1998-2008) is indicated in the table below:

### Table 3.2
Subscriber Base (in million) from 1998-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Subscriber Base in Million (Both Wireless and Wireline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>18.68</td>
</tr>
<tr>
<td>1999</td>
<td>22.81</td>
</tr>
<tr>
<td>2000</td>
<td>28.53</td>
</tr>
<tr>
<td>2001</td>
<td>36.29</td>
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<tr>
<td>2002</td>
<td>44.97</td>
</tr>
<tr>
<td>2003</td>
<td>54.62</td>
</tr>
<tr>
<td>2004</td>
<td>75.54</td>
</tr>
<tr>
<td>2005</td>
<td>98.41</td>
</tr>
<tr>
<td>2006</td>
<td>140.32</td>
</tr>
<tr>
<td>2007</td>
<td>206.83</td>
</tr>
<tr>
<td>2008</td>
<td>300.49</td>
</tr>
</tbody>
</table>

**Source:** Telecom Regulatory Authority of India (2008), *Annual Report 2007-08*, New Delhi, 10th October, p. 11

The total wireless subscriber base (GSM, CDMA and WLL (F)) stood at 261.07 million i.e. 86.88 per cent of the total telecom subscriber base (300.49 million). The number of wireline subscribers was 39.42 million (13.12 per cent) as on 31st March 2008.

The teledensity has also increased significantly over the years from 2.30 in 1998 to 26.22 as on 31st March 2008. It must be noted here that New Telecom Policy (NTP) 1999 had set the target of 15 by 2010 and telecom sector in India has already overtaken this target much before the scheduled time period. The similar trend is visible in the case of rural teledensity, which was merely 0.40 in 1998 and has increased now to 9.20 as on 31st March 2008. This again has comprehensively overtaken the target of 4 by the year 2010 set by NTP of 1999.41

There has been significant decline in tariffs with local call tariff for mobile having witnessed massive lowering from Rs. 15 to less than Rs. 1 now. Just to illustrate, one minute STD call between Delhi and Mumbai, which used to cost Rs. 37 now costs only Rs. 1. Even ISD calls have undergone huge reduction in tariffs. For example an ISD call to American Continent,

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which used to cost Rs. 75 now costs less than Rs. 7. Internet subscription has also shown tremendous increase with 11.09 million subscribers as on 31st March 2008 as compared to 0.09 million in 1997. In addition there are 66.09 million wireless data subscribers who are accessing internet through wireless (GSM and CDMA) networks. The number of broadband connections on 31st March 2008 was 3.87 million. The total number of PCOs in the country was 61,85,904 and the number of VPTs was 5,59,503.42

3.13 CONCLUDING OBSERVATIONS

Before the advent of economic liberalization in 1991-92, telecommunication services in India were monopoly of the State. The era was marked by lack of capital with government, inadequacy of telephone connections, long waiting lists, inefficiency and corruption. In 1994, the Government of India announced the National Telecom Policy (NTP), which defined certain important objectives, including availability of telephones on demand, the provision of world-class services at reasonable prices, and universal availability of basic telecom services to all villages. It also announced a series of specific targets to be achieved by 1997. Some of the targets as envisaged in the objectives of the NTP 1994 remained unfulfilled and the private sector entry was slower than what was envisaged.

The absence of a regulator was felt dearly as the Department of Telecommunications as policy-maker-cum-service-provider had the incentive to foil every chance of profitability of the private investor. The cabinet took a decision in May 1995 to set up a regulator. The government had delayed the implementation of this cabinet decision. Two public interest suits filed in the Supreme Court challenging privatization without regulation were dismissed in 1996 after assurances from the government that such an authority would be formed through a presidential ordinance. After much debate, parliament finally passed the TRAI Bill in February 1997. The Telecom Regulatory Authority of India (TRAI) was constituted in 1997 under "The Telecom Regulatory Authority of India Act, 1997", dated 28th March, 1997. Much work related to the strengthening the institutions governing the

42 Ibid., pp. 12-13

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telecom sector had been achieved between 1998 and 2000. This was the result of political will combined with the financial crisis facing private investment in the sector. The regulator was strengthened, the DoT's service operations were to be corporatized, and the telecom department's role was to be restricted to policy-making and licensing. Though, the early years of the regulator were marred by disputes with Department of Telecommunications and MTNL.

The most important landmark in telecom reforms came with the New Telecom Policy 1999 (NTP-1999), which reflected a new philosophy, a new vision, a new direction, and a new commitment. The government had undertaken its implementation with utmost earnestness, in letter and spirit. The New Telecom Policy 1999 reflected the political influence of the private telecommunications operators and proposed a bailout formula for them. It sought to restore TRAI's power to discipline the incumbent.

The Telecommunications Sector is poised to open up enormous possibilities for India's socio-economic development. It is for the policymakers to have a vision for the future and usher in the necessary reforms. The commercial objectives of profitability and high return on investment are likely to conflict with broader national objectives of security, equitable pricing and universal coverage – especially spread to the rural and remote areas. Monopolistic interests may insidiously attempt to stifle sector competition. To strike a delicate balance between the contending objectives is a daunting task which has to be handled carefully by the impartial Regulatory Agency.43 In the de-regulated environment it becomes the duty of the regulatory governance in the form of the Telecom Regulatory Authority of India to achieve this very delicate balance.

43 Ibid., p. 244.