



**GOVERNMENT OF INDIA**

# **PERFORMANCE BUDGET**

**2005-2006**

(Up to 31-03-2006)

**MINISTRY OF COMMUNICATIONS AND INFORMATION  
TECHNOLOGY  
(Department of Telecommunications)**



## PREFACE

The performance budget forms an integral part of the annual budgetary process. It highlights the achievement viz a viz financial outlay and targets fixed for various schemes and activities.

The Government of India recognizes that provision of world-class telecommunication infrastructure is a key to rapid economic and social development of the country. It is critical not only for the development of the communications and information technology industry, but also has widespread ramifications in various other sectors of the economy.

Keeping these objectives in mind, the Government has laid down the New Telecom Policy (NTP) 1999. The objectives of the NTP are:

- To make available affordable and effective communications for all citizens.
- To 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;
- To encourage development of telecommunication facilities in remote, hilly and tribal areas of the country;
- To 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;
- To convert PCO's, wherever justified, into Public Tele-infoCentres having multimedia capability like ISDN services, remote database access, Government and community information systems etc.
- To transform in a time bound manner, the telecommunications sector into a greater competitive environment in both urban and rural areas providing equal opportunities and a level playing field for all players;
- To strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities;
- To achieve efficiency and transparency in spectrum management.
- To protect the defense and security interests of the country
- To enable Indian telecom companies to become truly global players.

In order to achieve objectives of NTP-99 and recognizing the convergence of technologies and services and its impact on steep reduction in tariff for subscribers resulting in increase in volume of traffic, NTP – 99 was amended to include following categories of Service Providers/Licenses.

- a) Unified License
- b) Unified Access Service License

The projects, programmes and activities of the Department of Telecommunications and its public sector undertakings are directed towards achievement of the above objectives laid down by NTP 99. Recognizing the potential of ubiquitous Broadband Service in growth of GDP and enhancement in quality of life through societal applications including telemedicine, tele-education, e-governance, entertainment as well as employment generation by way of high speed access to information & web based application, Government announced Broad band policy 2004. The salient features of the policy are:-

- It defines Broadband connectivity as 'An always - data' connection that able to support interactive services including internet access and has the capability of the minimum download speed of 256 kilo bites per second to an individual subscriber.
- It envisages that there would be 3 million, 9 million and 20 million Broadband subscribers by the end of the year 2005, 2007 and 2010 respectively through various technologies.
- The policy lays down the technology options for Broadband services.
- Simplification of SACFA/WPC clearance

This document intends to highlight the specific objectives, projects and development activities of the Department of Telecom and its PSUs, in particular the progress of achievements against the targets of 2005-06 and the targets set for 2006-07. Notes on important projects and schemes are incorporated in this document.

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## CHAPTER-I

### A. INTRODUCTORY

1.0 The Department of Telecommunications which forms a part of the Ministry of Communications and Information Technology, was responsible for the planning, development, expansion, operation and maintenance of telegraph, telephone and wireless services in the country, and for formulation of national policies for planning and development of India's external telecommunication services, radio frequency spectrum management and to coordinate at the national level as nodal agency of the Government for interaction with the International Telecommunication Union (ITU), Geneva and Asia Pacific Telecommunity, (APT) Bangkok. The operative functions in Delhi and Mumbai were carried out by Mahanagar Telephone Nigam Limited and overseas communications by Videsh Sanchar Nigam Limited, two PSUs under the Department.

2.0 However, in pursuance of objectives of the New Telecom Policy announced in April, 1999, the Government of India by Notification No.1/22/1/99 Ca (i) dated 15.10.1999, bifurcated the Department of Telecommunications into two Departments viz. the Department of Telecommunications for policy and licensing functions and Department of Telecom Services for all service providing functions. The Department of Telecom Services was further bifurcated vide Government of India Extra-ordinary Gazette Notification dated 19.7.2000 into two Departments, viz. the Department of Telecom Services and the Department of Telecom Operations for all matters relating to operations of telephones, wireless, data, facsimile and telematics and other like forms of telecommunications. Subsequently, the Government of India has transferred the business of providing telecom services in the country from the Department of Telecom Services (DTS) and the Department of Telecom Operations (DTO) to a newly formed Company viz. Bharat Sanchar Nigam Limited, with effect from 1<sup>st</sup> October, 2000.

3.0 The Department of Telecom remains responsible for policy, licencing and co-ordination.

3.1 An independent Regulator was set up by Telecom Regulatory Authority of India Act 1997. The said Act was amended by TRAI (Amendment) Act 2000 to set up a Telecom Dispute Settlement & Appellate Tribunal (TDSAT).

#### **Statutory Tribunal**

- i) Telecom Disputes Settlement and Appellate Tribunal [TDSAT]

#### **Statutory Regulatory Body**

- i) Telecom Regulatory Authority of India [TRAI]

### **Autonomous body**

- i) Centre for Development of Telematics [C-DOT]

### **Attached/Subordinate Offices**

- i) Wireless Monitoring Organisation
- ii) Telecom Engineering Centre
- iii) Administrator, Universal Service Fund (USF)

### **Public Sector Undertakings**

- i) Bharat Sanchar Nigam Limited, New Delhi – Govt. holding 100%
- ii) Mahanagar Telephone Nigam Limited, Delhi – Govt. holding 56.25%.
- iii) ITI Limited, Bangalore – Govt. holding 92.87%
- iv) Telecommunications Consultants India Limited, New Delhi – Govt. holding 100%

## **B. ORGANISATION**

### **1. DEPARTMENT OF TELECOMMUNICATIONS**

**1.1** With a view to promoting quick decision making and development in all aspects of telecommunications including technology, production services and financing etc., the Government of India established a Telecom Commission with necessary executive, administrative and financial powers to deal with various aspects of telecommunications, modeled on the lines of Atomic Energy Commission/Space Commission. Telecom Commission, which consists of a Chairman and four full time and four part-time Members, functions under the Ministry of Communications and Information Technology headed by the Minister of Communications and Information Technology. Till 30.9.2000, the Commission directly oversaw the operations and the developmental activities of the Department of Telecom Services. Department of Telecommunications is, however, responsible for :

- Administration of the Indian Telegraph Act , TRAI Act, Indian Wireless Telegraphy Act, Unlawful Possession of Telegraph Wires Act and issues relating to convergence;
- All matters relating to policy and licensing of Basic Services, National Long Distance Service, International Long Distance Service, Unified Access Service, Cellular Services, Value Added Services, Radio Paging, Internet Service Providers and VSAT and Broadband Service.
- All matters relating to licensing regulation, regulatory framework and interaction with TRAI thereon;



- Implementation of National Telecom Policy – 1999
- Implementation of Broadband Policy - 2004
- EXIM policy including duty structure, export promotion and coordination of exhibits
- All matters relating to private investment promotion, foreign investments and institutional funding;
- All matters of DOT relating to bi-lateral, multi-lateral and international relations such as signing of agreements etc.;
- Participation in national/international workshops, seminars etc., including ITU/APT;
- All matters relating to annual and long term planning (including plans of PSUs) ,  
interface with Planning Commission and other Ministries on planning matters, rural telecom network.
- Group on Telecom in WTO – Negotiations thereof;
- Co-ordination with INTELSAT, INMARSAT, INTERSPUTNIK Satellite Organisations;
- Matters relating to Telephone Advisory Committees, Telephone Adalats, Open House Sessions, etc.;
- HRD issues;
- All vigilance matters concerning DOT, its PSUs and C-DOT.

## **1.2 Controller of Communication Accounts**

With the formation of the BSNL from 1.10.2000, a need was felt to establish units in each circle Headquarters to disburse the retirement benefits to the BSNL retirees. The Controller of Communication Accounts (CCA) is responsible for the settlement of terminal benefits i.e. issue of Pension Payment Orders, authorization of payment of commuted value of pension, gratuities, recovery of pension contribution, recovery and accounting of long term advances taken by employees while working in the Government. The CCAs are also responsible for recovery of licence fee and spectrum charges from various service providers in the telecom sector. After the setting up of Universal Service Obligation, the CCAs are also responsible for scrutiny of the claims of various operators to enable the Administrator (USO) to disburse funds to the appropriate service providers.

## **1.3 Vigilance Telecom Monitoring Cells:**

With the increasing number of telephone operators in the country the Government felt the need of presence of the Telegraph Authority in the circles. With the entry of the private operators, there has also been an increase in illegal/ clandestine operation in the country. To tackle this menace, presently, the Government has created the Vigilance Telecom Monitoring Cells (VTMs) at

Delhi, Mumbai, Chennai and Hyderabad. They represent the licensor/Telegraph Authority in the field and coordinate with all the service providers to curb illegal/clandestine operations within the country. The responsibilities of these cells include vigilance and technical monitoring of all telecom service providers.

Presently the Government has opened two numbers (1-600-110-420 (toll-free) and 2373-1100) on which any subscriber can give information on international calls where the Calling Line Identification (CLI) is not correct. Advertisements have also been given in the leading newspapers for creating general awareness among the public so that they actively help in providing information on international calls received with incorrect Calling Line Identification (CLI).

#### **1.4 Telecommunication Engineering Centre (TEC)**

**1.4.1** Telecommunications Engineering Centre (TEC), is a part of DoT, Government of India with its headquarters at New Delhi and regional centres at Bangalore, Delhi, Mumbai, Calcutta and Hyderabad.

Various activities of the headquarters divisions cover various areas of telecommunications, viz:

- External Plant
- Information Technology
- Networks and Network terminals
- Mobile Communications
- Optical and Line Transmission
- Power Plant and Batteries
- Radio Transmission
- Satellite Transmission
- Telecom Services
- Switching
- Regional Co-ordination

In addition, the Regional Centres facilitate according of approvals and testing of licensed service networks as well as point of interconnect. These Regional Centres carry out interaction with industry for development of telecom products. These are located with regional headquarters in Bangalore, Calcutta, Hyderabad and Mumbai to cover the entire country.

#### **1.4.2 Important functions and responsibilities.**

The important functions and responsibilities of the TEC are :-

- Standardization and development of Generic Requirements, Interface Requirements, etc. for telecom equipment, services and products.

- Evolution and approval of telecom equipment, services and products including approval of technology transfer for R&D institutions.
- New Telecom Technology study, trial, evolution and induction.
- Technical and Advisory support -
  - On planning aspects including major network problems.
  - On fundamental telecom plans.
- Assistance to Licensing cell and to regulation on technical issues.
- Investigation of major operational problems and undertaking modification and adaptation of equipments, methods etc.
  - Services testing.
  - R&D Council and activities.

### **1.4.3 Publications**

TEC publishes many documents which are available on sale. Some of these are Generic Requirements and specifications, Approval Procedure Documents, List of Generic and Service Approvals issued, list of companies having Type Approvals, Interface Approvals, Source Approvals, etc. Apart from above documents, some important publications include the quarterly issue of TEC Newsletter and various reports dealing with the telecom technology.

## **1.5 Telecom Regulatory Authority of India (TRAI)**

The Telecom Regulatory Authority of India (TRAI) was established under the Telecom Regulatory Authority of India Act, 1997 enacted on 28<sup>th</sup> March 1997. The TRAI (Amendment) Act, 2000 led to reconstitution of the Authority. It consists of one Chairperson, two full-time members and two part-time members. The goals and objectives of TRAI are focused towards providing a regulatory regime that facilitates achievement of the objectives of New Telecom Policy (NTP) 1999. TRAI has endeavoured to encourage greater competition in telecom sector together with better quality and affordable prices, in order to meet the objectives of NTP'99. Vide a Notification of the Government dated 9<sup>th</sup> January 2004, broadcasting and cable services have also been included in the definition of 'telecommunication service' under the TRAI Act, and thus, broadcasting and cable services have also come under the purview of TRAI.

### **1.5.1 Functions of TRAI**

1.5.1.1 Functions of the Authority are specified in section 11 of the TRAI Act. Under section 11(1) (a) of the TRAI Act, the TRAI is to make recommendations either suo-moto or on a request from the licensor on the following matters:

- (i) Need and timing for introduction of new service providers,
- (ii) Terms and conditions of licence to service providers,

- (iii) Revocation of licence for non-compliance of the terms and conditions of licence
- (iv) Measures to facilitate competition and promote efficiency in the operation of telecommunication services,
- (v) Technological improvements in the services provided by the service providers,
- (vi) Type of equipment to be used by the service providers after inspection of the equipment used in the network,
- (vii) Measures for the developments of telecommunication technology,
- (viii) Efficient management of the available spectrum.

1.5.1.2 Under section 11(1) (b) of the TRAI Act, TRAI's regulatory functions are:

- (i) Ensure compliance of the terms and conditions of licence,
- (ii) Fix the terms and conditions of inter-connectivity between the service providers,
- (iii) Ensure technical compatibility and effective interconnection between different service providers,
- (iv) Regulate arrangement amongst service providers of sharing their revenue derived from providing telecommunications services,
- (v) Lay down the standards of quality of service to be provided by the service providers and ensure the quality of service and conduct periodical survey of such service provided by the service providers so as to protect the interest of the consumers,
- (vi) Lay down and ensure the time period for providing local and long distance circuits of telecommunication between different service providers.
- (vii) Maintain register of interconnection agreements and all such other matters as may be provided in the regulations,
- (viii) Ensure effective compliance of universal service obligations.

1.5.1.3 Under section 11(1) (c) & (d) of the TRAI Act, TRAI's other functions are:

- (i) Levy fee and other charges at such rates and in respect of such services as may be determined by regulations,
- (ii) Perform such other functions including administrative and financial functions as may be entrusted to it by the Central Government or as may be necessary to carry out the provisions of the TRAI Act,

As per section 11(2) of the TRAI Act, the function of the Authority is to notify from time to time in the Official Gazette the rates at which the telecommunication services within India and outside India shall be provided under the TRAI Act including the rates at which messages shall be transmitted to any country outside India.

In addition to the above, in exercise of the powers conferred by clause (d) of sub-section (1) of section 11 of the TRAI Act, the Central Government has entrusted additional functions to TRAI in respect of broadcasting and cable services which mandates TRAI to make recommendations regarding the terms and conditions on which the “Addressable systems” shall be provided to the customers.

## **1.6 Telecom Disputes Settlement & Appellate Tribunal (TDSAT)**

1.6.1 Telecom Disputes Settlement & Appellate Tribunal (TDSAT) has been established by the Central Government by a substantial amendment to Section 14 of the Telecom Regulatory Authority of India Act, 1997 (as amended in 2000) for adjudication any dispute between a licensor and licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any decision or order of Telecom Regulatory Authority of India.

1.6.2 By a Notification issued on 9<sup>th</sup> January 2004, the Central Government expanded the meaning of the term “telecommunications services” so as to also include “broadcasting services” and “cable services”

1.6.3 The Tribunal, therefore, exercises both Original and Appellate jurisdiction in respect of disputes pertaining to telecom, broadcasting and cable services.

1.6.4 The Tribunal is headed by Hon’ble Mr. Justice N.Santosh Hegde, former Judge of Supreme Court of India, as Chairperson of TDSAT and the two Members viz. Mr. Vinod Vaish, former Chairman, Telecom Commission and Lt. Gen. (Retd.) D.P Sehgal.

1.6.5 TDSAT has also developed it own Website and all the important judgments and other activities of the Tribunal are available on the Website [www.tdsat.nic.in](http://www.tdsat.nic.in). The E-Mail address of the Tribunal is [tdsat@hub.nic.in](mailto:tdsat@hub.nic.in).

## **1.7 Wireless Planning and Co-ordination (WPC) Wing**

### **A. Objectives**

- i) Radio Frequency Spectrum Management, issue of licenses to establish and operate wireless stations and conduct examinations for award of Radio Operators’ Certificate of Proficiency and Licence to operate wireless equipment.
- ii) Coordination at national level as nodal agency of the Government for interaction with the International Telecommunication Union (ITU), Geneva and Asia Pacific Telecommunity (APT), Bangkok.

## **B. Functions**

The Wireless Planning and Co-ordination (WPC) Wing of the Ministry of Communications & Information Technology is responsible for:

- i) Radio Frequency(RF) Spectrum Management for terrestrial and satellite operations and Orbit-Frequency coordination in respect of Satellite Systems keeping in view ITU's Radio Regulations.
- ii) Assignment of radio frequencies for various radio services in India and all the related actions for national and international coordination.
- iii) Licensing of all wireless stations of various categories.
- iv) Coordination in all matters as national nodal agency, relating to International Telecommunication Union (ITU) and the Asia Pacific Telecommunity (APT) including preparations for participation in their meetings and conferences after coordinating and harmonizing the views at national level with various wireless users from Govt. Departments/Organization and others.
- v) Conduct of examinations for award of Certificate of Proficiency (COP) for Radio Officers/Pilots/Wireless Operators on board ships and aircrafts and for award of Amateur Stations Operators Certificates (ASOC).
- vi) Site clearance of wireless installations and effecting inter-departmental coordination through the apex body namely the Standing Advisory Committee on Radio Frequency Allocations. (SACFA)
- vii) Direction and Control of Wireless Monitoring Organization, the field organization.

### **1.8 Wireless Monitoring Organization (WMO)**

The Wireless Monitoring Organization (WMO) is a field organization of the WPC Wing of the Ministry of Communications & I.T. The primary task of WMO is to monitor the entire radio frequency spectrum with a view to provide the requisite technical data and logistic support to the WPC Wing in the enforcement of the National and International Radio Regulatory and statutory provisions for efficient management of Radio Frequency Spectrum (RFS) and Geo-Stationary Satellite Orbit(GSO). This is in the interest of vital national service which, through not revenue bearing, yields considerable indirect to benefits. Towards this end, a network of 22 Wireless Monitoring Stations were established to carryout the following major tasks:-

- (a) Surveillance over radio spectrum, for detection of infringements of technical parameters and regulatory provisions by licensed and authorized stations and to ascertain spectrum occupancy/vacancy.

- (b) Analysis of specific complaints of harmful interference to reception of radio emissions, conduct investigations, gathers data through process of extensive monitoring for suitable remedial actions.
- (c) Participation of international monitoring programs under the aegis of ITU.
- (d) Carryout special technical investigations and measurements, assistance to other Department/Organization for frequency measurements, site noise level measurements, etc.
- (e) Inspection of licensed/authorized wireless stations for verifying adherence to regulatory conditions.
- (f) Man-made radio noise measurements/survey.
- (g) Providing regional co-ordination forum for the SACFA.
- (h) Co-operate with other Administrations and other International Organizations in carrying out measurements on radio emissions.
- (i) Provide assistance in conducting examination for the award of Certificate of Proficiency, Global Maritime Distress & Safety Systems (G MDSS) and grant of Amateur Station Operators license and Aeronautical Radio Telephony (General) license.

As the National nodal agency entrusted with the responsibility for regulating, planning and coordination of all radio frequency usages in the country, the WPC Wing of the Ministry of Communications, has to manage the twin and limited natural resources of the RFS and GSO on the exploitation of which an array of radio services like communication, navigation, broadcasting, meteorology etc., is based.

Owing to continuous and rapid advances in the technology of radio communication services and the consequential refinements in the International Radio Regulations of the ITU, it is imperative that Radio Monitoring services and Spectrum Management Facilities should be modernized/augmented. The very nature of Radio Frequency Spectrum, which is a non depleting, limited natural resource, and its international character makes it necessary to update radio monitoring and spectrum management facilities not only in the national context but also to take care of International obligations.

## **1.9 Centre for Development of Telematics (C-DOT)**

The Centre for Development of Telematics (C-DOT) was set up by the Government of India on August 25, 1984 as an autonomous scientific society under the Societies Registration Act, 1860, with its registered office in New Delhi. Its activities focus on research and development in the areas of telematics technology, products and services. The organisation is funded mainly by way of grants-in-aid from the Government.

### **1.9.1 Key Objectives**

- (i) Development of total telecom solutions, technologies and application for the fixed line, mobile and packet based converged network & services.
- (ii) Development of local manufacturing capabilities for C-DOT products by using indigenous ancillary industries for components.
- (iii) Research in the frontiers of information technology and telematics, taking into account futuristic trends.

C-DOT's product portfolio includes fixed line PSTN system, Advanced intelligent network solution, Access Network products, Synchronous Digital Hierarchy (SDN) and Wavelength Division Multiplexing(WDM) system, Satellite Communication System, Network Management System(NMS), Operation Support System (OSS), Rural Wireless Access and Broadband solution based on WiMax, WiFi and GSM system.

### **1.10 Administrator, Universal Service Fund (USF)**

The Universal Service Support Policy (USSP) announced by the Government on the basis of the recommendations of the TRAI came into effect from 1.4.2002. The scope of the Universal Service Obligation (USO) includes public access through Village Public Telephones (VPTs), Rural Community Phones (RCPs), Public Tele-Information Centres (PTICs), and High Speed PTICs, as well as provision of household telephones in the identified net high cost rural/remote areas. As envisaged in NTP-99, the resources for the implementation of the USSP are being raised through a Universal Service Levy (USL) which has been fixed at 5% of the Adjusted Gross Revenue (AGR) earned by all the operators as part of the licence fee, except for pure Value Added Service Providers, Voice Mail, e-mail and Internet Service Providers, etc.

For implementation of the Universal Service Support Policy, the Government has appointed an Administrator, Universal Service Fund w.e.f. 1.6.2002. The office of the Administrator, USF is an attached office of the DOT.

The main functions of the Administrator, USF are as follows:

- a) Implementation of the guidelines laid down by Government for providing Universal Service Support;
- b) Suggesting such changes in policy as may be deemed necessary for implementation of Universal Service Support;
- c) Forecasting the requirement of Universal Service Funds for each financial year and obtaining approval of Government through Department of Telecom; and
- d) Ensuring that the prescribed Universal Service Levy is credited to the appropriate Universal Service Fund on a regular basis.



## **2. PUBLIC SECTOR UNDERTAKINGS**

### **2.1 Bharat Sanchar Nigam Limited (BSNL)**

- 2.1.1 In pursuance of New Telecom Policy 1999, the Government of India corporatised the service providing functions of Department of Telecommunications (DOT) and transferred the business of providing telecom services in the country to the newly formed company viz. Bharat Sanchar Nigam Limited with effect from 1<sup>st</sup> October 2000. The Company has been incorporated as a company with limited liability by shares under the Companies Act, 1956, with its registered and corporate office in New Delhi.
- 2.1.2 BSNL is a Public Sector Undertaking with an authorized share capital of Rs.10,000 crore and paid up capital of Rs.5,000 crore. It is one of the largest Public Sector Undertaking (PSU) in the country and is a technology-oriented company with a mandate of providing all types of telecom services.
- 2.1.3 BSNL has largest telecom network in the country. It operates the telecom services in all the circles of the country except Mumbai and Delhi where another Public Sector Undertaking viz. MTNL is operating.
- 2.1.4 BSNL has introduced cellular mobile service (GSM based) and Mobile telephones based on WLL technology in its network during 2002-03.
- 2.1.5 BSNL as an Internet Service Provider (ISP) provides a full range of internet services through National Internet Backbone (NIB). It has introduced Intelligent Services (IN) and Internet Telephony Service.
- 2.1.6 In pursuance to the Broadband Policy 2004 of the Government, BSNL introduced Broadband Services by the name "Data One".
- 2.1.7 The first and foremost vision of BSNL is to provide world-class telecom services ranging from plain telephone service to all types of value added services at affordable prices while ensuring operation with customer orientation.
- 2.1.8 BSNL is working towards the following objectives:
- a) To deploy state of the art technology for all types of telecom services in the country.
  - b) To face the competition and excel in its operations in the Indian markets by developing proper marketing strategies and being customer focused.
  - c) To provide all types of telecom services at affordable rates in of the country including the rural areas and inaccessible areas.

- d) To fulfill the telecommunications requirements for the growth and development of business enterprises in the country.

## **2.2 Mahanagar Telephone Nigam Limited (MTNL)**

- 2.2.1 Mahanagar Telephone Nigam Limited (MTNL) was incorporated on Feb.28, 1986 under the Companies Act as a wholly owned Govt. Company and on April, 01 1986, assumed responsibility for the control, management, operation of the telecommunications Networks in Delhi & Mumbai. MTNL is the principal provider of fixed-line telecommunication service in these two Metropolitan Cities of Delhi and Mumbai and the jurisdiction of Company comprises the city of Delhi and the areas falling under the Mumbai Municipal Corporation, New Mumbai Corporation and Thane Municipal Corporation.
- 2.2.2. MTNL under a license issued on Feb' 2001 is also providing GSM based cellular services in both the metropolitan cities of Delhi (including the cities of Gurgaon, Faridabad, Ghaziabad and Noida) and Mumbai (including Kalyan as well). The GSM based Cellular Mobile Services are provided with the brand name "Dolphin" and "Trump".
- 2.2.3. MTNL is providing Internet and Broadband Services in Delhi & Mumbai
- 2.2.4 A Joint Venture Company named United Telecom Ltd. (UTL) has been set up by MTNL, VSNL and TCIL along with Nepal Venture Pvt. Ltd. (NVPL) to provide CDMA based basic services in Nepal. UTL also have licence to operate NLD & ILD services. MTNL has so far invested Rs 23.345 crore as equity in UTL.
- 2.2.5. In the international arena, Company established a wholly owned subsidiary under the name and style of Mahanagar Telephone (Mauritius) Ltd. in November 2003 to provide telecom Services in Mauritius. It has already started ILD services from June 2005.
- 2.2.6 MTNL launched Broadband service based on the state of the art ADSL2+ technology. The service has found huge acceptability with customers and the subscriber base has grown rapidly.
- 2.2.7 MTNL's mission is to remain a market leader in providing world-class telecom and IT related services and become a global telecom company. MTNL is moving towards realizing its vision of becoming a global telecom company with total telecom solutions at affordable prices. The joint venture company i.e United Telecom Limited at Nepal which started commercial operations in the year 2004 achieved a turnover of Rs. 20 crs with a subscriber base of 31121 numbers as on 31.3.2005. Company plans to add value added services services such as SMS on landline, unified messaging, Wi- Fi, Wi- Max system in the near future.

## **2.3 ITI Limited**

- 2.3.1 I T I Limited was established in July 1948 as a Departmental Undertaking of the Government of India and was converted into a Company in January 1950. It is the first Public Sector Undertaking to be set up by the Government of India. The Company has grown into country's largest telecom company with state-of-the-art manufacturing facilities spread across six manufacturing units located at Bangalore, Naini, Rae Bareli, Srinagar, Palakkad & Mankapur. In addition Network systems unit with head quarters at Bangalore provides value-added services like Radio Paging, VSAT, etc. and there are 10 Regional Offices. Having contributed to over 60% of the existing national Network the company offers a complete range of telecom products covering the whole spectrum of Switching, Transmission, Access and Subscriber Premises equipment. In tune with the technology trend, it has embarked on the manufacture of GSM and CDMA infrastructure equipment. The Authorised and Paid up Share Capital of the Company is Rs.700 Crores and Rs.588 respectively as on 31-03-2005. The Registered and Corporate Office of the Company is situated at Bangalore.
- 2.3.2. ITI Company's strength in the strategic area of communications for Defense has been epitomized by the prestigious ASCON project, the third phase of which it is currently implementing. By deploying its vast telecom expertise and infrastructure, the Company is consolidating its diversification into IT and IT – enabled services, acquiring keen competitive edge in the convergence market.
- 2.3.3. Major Customers of ITI products are Bharat Sanchar Nigam LTD and MTNL. ITI is also supplying Telecom Products to Railways, Defence and Corporate Sectors. ITI is also making all out efforts to become a key player in the global market and continued its exports efforts in Afganistan, Africa and SAARC countries The Company has achieved an Export turn-over (including services) Rs. 44 crores during the year.

## **2.4 Telecommunications Consultants India Limited (TCIL)**

- 2.4.1 On 10<sup>th</sup> March 1978, Telecommunications Consultants India Ltd. (TCIL) was incorporated as a wholly owned Government of India Company. The Company was set up with the objective of extending the wide ranging telecom expertise available with DOT to friendly developing countries. On August 1st, 1978, the Company commenced its business. The Company has since then been engaged in adopting world class communication and IT technologies for catering to the local needs of countries mainly in the developing world. Year 2003 is a Silver Jubilee Year of its successful business achievements. Company has established the credibility for having assured business in Wireless Networks and in Information Technology all over the world.

## 2.4.2. **Core Competence**

2.4.2.1 Company is undertaking projects in all the fields of telecommunications and IT in India and abroad. The core competence of the Company is in Network projects, Software Support, Switching and Transmission Systems, Cellular Services, Rural Telecommunications, Optical Fibre based backbone network, CDMA based basic service networks, Billing, Mediation and customer care systems for different telecom services. The company is also diversifying into other business areas such as Optical Fibre on ground wire for power utilities, e-governance for State Governments in India and abroad, communication system for Airport Terminals & Light Houses, construction of roads etc.

2.4.2.2. Company has also entered into Basic and other licensed Services in India/ abroad through the JV route. TCIL already has operations of cellular services through a JV in Rajasthan.

2.4.2.3. Company secures business by participating in international and national competitive bidding. The company is also contributing to provide strategic communication in the neighboring countries like Nepal, Afghanistan, Bhutan etc.

## Chapter II

### FINANCIAL REVIEW / OUTLAY

Financial review/requirement of the Programme/Schemes under Secretariat of the MOC, DOT (HQ), C-DOT, TEC, WPC, WMO, VTMs, USO, Contribution to International Telecommunications Union, Asia Pacific Telecommunity, TRAI and Telecom. Dispute Settlement and Appellate Tribunal.

(Rs. in Crores)

	BE 2004-05			RE 2004-05			Actuals 2004-05		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
<b>Budgetary Provision</b>									
<b>MH 3451-Secretariat Economic Services:</b>									
(a) Secretariat (MOC)	0.00	4.34	4.34	0.00	4.80	4.80	0.00	4.21	4.21
(b) Directorate General Administration	0.00	38.60	38.60	0.00	90.21	90.21	0.00	87.58	87.58
(c) Administrator USO Fund	0.00	0.92	0.92	0.00	0.92	0.92	0.00	0.88	0.88
(d) C-DOT	81.38	0.00	81.38	68.36	0.00	68.36	68.36	0.00	68.36
(e) TEC	4.00	9.77	13.77	2.98	9.77	12.75	0.73	8.76	9.49
<b>Total -MH 3451</b>	<b>85.38</b>	<b>53.63</b>	<b>139.01</b>	<b>71.34</b>	<b>105.70</b>	<b>177.04</b>	<b>69.09</b>	<b>101.43</b>	<b>170.52</b>
<b>MH 2071 – Pension</b>									
<b>Pension</b>	<b>0.00</b>	<b>1155.00</b>	<b>1155.00</b>	<b>0.00</b>	<b>1200.00</b>	<b>1200.00</b>	<b>0.00</b>	<b>1172.59</b>	<b>1172.59</b>
<b>MH 2852 - Industries</b>									
(a) Interest Subsidy to ITI Ltd.	0.00	2.63	2.63	0.00	2.63	2.63	0.00	2.63	2.63
(b) Write off of Loans to ITI Ltd.	0.00	508.00	508.00	0.00	601.10	601.10	0.00	601.10	601.10
(c) Waiver of Penal Interest outstanding against ITI Ltd.	0.00	20.74	20.74	0.00	23.67	23.67	0.00	23.67	23.67
<b>Total -MH 2852</b>	<b>0.00</b>	<b>531.37</b>	<b>531.37</b>	<b>0.00</b>	<b>627.40</b>	<b>627.40</b>	<b>0.00</b>	<b>627.40</b>	<b>627.40</b>
<b>MH 3275 –Other Communications Services:</b>									
(a) WPC	73.75	2.29	76.04	20.00	2.26	22.26	3.06	1.25	4.31
(b) Wireless Monitoring Services	4.00	10.09	14.09	0.50	9.93	10.43	0.03	8.84	8.87
(c) Contribution to International Telecommunications Union	0.00	5.75	5.75	0.00	6.00	6.00	0.00	5.90	5.90
(d) Contribution to Asia Pacific Telecommunity	0.00	0.75	0.75	0.00	0.75	0.75	0.00	0.57	0.57
(e)Telecommunication Commonwealth Organisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(e) Transfer to Telecom Authority of India General Fund	0.00	5.00	5.00	0.00	13.00	13.00	0.00	13.00	13.00
(f) Telecom Dispute Settlement and Appellate Tribunal	0.60	2.13	2.73	0.70	2.13	2.83	0.60	2.13	2.73
(g) Compensation to I.T.I	0.00	1.50	1.50	0.00	1.50	1.50	0.00	1.50	1.50
(h) Transfer to USO Fund	0.00	200.00	200.00	0.00	1200.00	1200.00	0.00	1314.59	1314.59
(i) Compensation to Service Providers	0.00	200.00	200.00	0.00	1200.00	1200.00	0.00	1314.58	1314.58
(j) Reimbursement to BSNL	0.00	0.00	0.00	0.00	1994.85	1994.85	0.00	1765.68	1765.68
<b>Total - MH 3275</b>	<b>78.35</b>	<b>427.51</b>	<b>505.86</b>	<b>21.20</b>	<b>4430.42</b>	<b>4451.62</b>	<b>3.69</b>	<b>4428.04</b>	<b>4431.73</b>
<b>Total - Revenue Section</b>	<b>163.73</b>	<b>2167.51</b>	<b>2331.24</b>	<b>92.54</b>	<b>6363.52</b>	<b>6456.06</b>	<b>72.78</b>	<b>6329.46</b>	<b>6402.24</b>
<b>Capital Section:</b>									
(i) Investment in ITI Ltd.	0.00	0.00	0.00	200.00	0.00	200.00	200.00	0.00	200.00
(ii) WMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(iii) Loans to I.T.I	0.00	508.00	508.00	0.00	601.10	601.10	0.00	601.10	601.10
(iv) Loans to BSNL	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total - Capital Section</b>	<b>1.00</b>	<b>508.00</b>	<b>509.00</b>	<b>200.00</b>	<b>601.10</b>	<b>801.10</b>	<b>200.00</b>	<b>601.10</b>	<b>801.10</b>
<b>Total Telecommunications Services</b>	<b>164.73</b>	<b>2675.51</b>	<b>2840.24</b>	<b>292.54</b>	<b>6964.62</b>	<b>7257.16</b>	<b>272.78</b>	<b>6930.56</b>	<b>7203.34</b>

Note: This does not include expenditure under MH 3225 & MH 5225 as no cash outgo was involved

	BE 2005-06			RE 2005-06			BE 2006-07		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
<b>Budgetary Provision</b>									
<b>MH 3451-Secretariat Economic Services:</b>									
(a) Secretariat (MOC)	0.00	4.43	4.43	0.00	5.10	5.10	0.00	5.48	5.48
(b) Directorate General Administration	0.00	46.62	46.62	0.00	80.81	80.81	0.00	86.98	86.98
(c) Administrator USO Fund	0.00	0.94	0.94	0.00	1.19	1.19	0.00	1.34	1.34
(d) C-DOT	82.00	0.00	82.00	78.82	0.00	78.82	66.00	0.00	66.00
(e) TEC	1.13	9.15	10.28	0.12	8.90	9.02	1.00	9.89	10.89
(f) Telecom Testing & Security Certification Centre	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	5.00
<b>Total -MH 3451</b>	<b>83.13</b>	<b>61.14</b>	<b>144.27</b>	<b>78.94</b>	<b>96.00</b>	<b>174.94</b>	<b>72.00</b>	<b>103.69</b>	<b>175.69</b>
<b>MH 2071 – Pension</b>									
<b>Pension</b>	<b>0.00</b>	<b>1200.00</b>	<b>1200.00</b>	<b>0.00</b>	<b>1240.00</b>	<b>1240.00</b>	<b>0.00</b>	<b>1300.00</b>	<b>1300.00</b>
<b>MH 2852 - Industries</b>									
(a) Interest Subsidy to ITI Ltd.	0.00	2.63	2.63	0.00	2.57	2.57	0.00	0.00	0.00
(b) Write off of Loans to ITI Ltd.	0.00	100.00	100.00	0.00	100.00	100.00	0.00	0.00	0.00
(c) Waiver of Penal Interest outstanding against ITI Ltd.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total -MH 2852</b>	<b>0.00</b>	<b>102.63</b>	<b>102.63</b>	<b>0.00</b>	<b>102.57</b>	<b>102.57</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>MH 3275 –Other Communications Services:</b>									
(a) Wireless Planning and Co-ordination	62.71	2.30	65.01	9.24	1.50	10.74	13.61	1.62	15.23
(b) Wireless Monitoring Services	6.50	10.16	16.66	0.07	11.63	11.70	3.00	13.04	16.04
(c) Contribution to International Telecommunications Union	0.00	6.00	6.00	0.00	6.00	6.00	0.00	6.00	6.00
(d) Contribution to Asia Pacific Telecommunity	0.00	0.70	0.70	0.00	0.70	0.70	0.00	0.70	0.70
(e)Telecommunication Commonwealth Organisation	0.00	0.48	0.48	0.00	0.48	0.48	0.00	0.48	0.48
(e) Transfer to Telecom Authority of India General Fund	3.00	13.00	16.00	3.00	13.00	16.00	3.25	17.11	20.36
(f) Telecom Dispute Settlement and Appellate Tribunal	1.00	2.13	3.13	0.70	2.35	3.05	0.75	2.60	3.35
(g) Compensation to I.T.I	0.00	1.50	1.50	0.00	3.00	3.00	0.00	7.61	7.61
(h) Transfer to USO Fund	0.00	1200.00	1200.00	0.00	1750.00	1750.00	0.00	1500.00	1500.00
(i) Compensation to Service Providers	0.00	1200.00	1200.00	0.00	1750.00	1750.00	0.00	1500.00	1500.00
(j) Reimbursement to BSNL	0.00	0.00	0.00	0.00	616.67	616.67	0.00	0.00	0.00
(k) Technical Assistance	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
<b>Total - MH 3275</b>	<b>73.21</b>	<b>2436.27</b>	<b>2509.48</b>	<b>13.01</b>	<b>4155.33</b>	<b>4168.34</b>	<b>21.61</b>	<b>3049.16</b>	<b>3070.77</b>
MH 2552 -Prov. for North East Region	0.00	0.00	0.00	0.00	0.00	0.00	19.00	0.00	19.00
<b>Total - Revenue Section</b>	<b>156.34</b>	<b>3800.04</b>	<b>3956.38</b>	<b>91.95</b>	<b>5593.90</b>	<b>5685.85</b>	<b>112.61</b>	<b>4452.85</b>	<b>4565.46</b>

	BE 2005-06			RE 2005-06			BE 2006-07		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
<b>Capital Section:</b>									
(i) Investment in ITI Ltd.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(ii) WMO	2.27	0.00	2.27	0.05	0.00	0.05	0.00	0.00	0.00
(iii) Undersea Cabling -Land & A&N	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
(iv) Net work for Defence Services	0.00	0.00	0.00	0.00	0.00	0.00	97.14	0.00	97.14
(v) Loans to I.T.I	0.00	200.00	200.00	0.00	200.00	200.00	0.00	0.00	0.00
(vi) Loans to BSNL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MH 4552 -Prov. for North East Region	0.00	0.00	0.00	0.00	0.00	0.00	2.86	0.00	2.86
<b>Total - Capital Section</b>	<b>2.27</b>	<b>200.00</b>	<b>202.27</b>	<b>0.05</b>	<b>200.00</b>	<b>200.05</b>	<b>101.00</b>	<b>0.00</b>	<b>101.00</b>
<b>Total Telecommunications Services</b>	<b>158.61</b>	<b>4000.04</b>	<b>4158.65</b>	<b>92.00</b>	<b>5793.90</b>	<b>5885.90</b>	<b>213.61</b>	<b>4452.85</b>	<b>4666.46</b>

Position of Utilisation Certificates:- No utilisation certificate for the Grants released upto 31.03.2005 is outstanding

## CHAPTER III

### OVERALL PERFORMANCE

This chapter gives a review of overall performance of the Department and its PSUs, detailing the targets and achievements during 2005-06 in terms of broad physical dimensions and financial outlays. It also gives a snapshot review of the telecommunication sector in the country.

#### 1. DEPARTMENT OF TELECOMMUNICATION

The Department of Telecommunications looks after policy matters for development of the telecom sector in the country, licensing of telecommunications services, radio frequency management, and management of India's relations with the external telecommunications world. There has been accelerated growth in the telecom sector because of various proactive interventions of the Department.

##### Overview of the telecom sector

There are about 130 million telephone connections as on 31<sup>st</sup> January 2006 with about 48 million fixed line subscribers and 82 million mobile subscribers. The tele-density has increased from 1.28 per hundred populations in 1996 to 11.75 per hundred population by 31<sup>st</sup> January 2006. The Internet subscriber base has crossed 7.5 million and the Broadband Base touched one million as on 31.01.2006. The share of private sector now stands at 54%. Similarly, the share of Mobile Phones has reached 62% in December 2005. List of achievements in past one year is as follows:

##### Network expansion:

- There is a quantum jump in the growth which was at an average of 2 million lines per month in 2004-05. There has been a steep increase over last few months and almost touched 5 million in December 2005.
- A target of providing 250 million telephone connections by the end of calendar year 2007 has been set.

##### Rural Telephony:

Improving rural connectivity has been high on priority of DOT. Several measures have been taken in this direction.

- Providing telephones in remaining unconnected villages is a component of Bharat Nirman. Bharat Sanchar Nigam Limited (BSNL) has been awarded the work for providing Village Public Telephones (VPTs) in all the remaining 66,822 uncovered villages by November 2007 with support from Universal Service Obligation Fund (USOF). As on 30<sup>th</sup> November 2005, 15,527 VPTs have been provided. Efforts are being made to complete it in 2006 itself.



- To promote reliable connectivity, about 1,50,000 MARR VPTs have been replaced with landline/FWT VPTs. The remaining about 50,000 MARR VPTs shall be replaced by June 2006.
- Arrangements made for launching a pilot project for provisioning of Public Tele-Info Centres (PTICs) and High Speed PTICs (HPTICs) in 2,000 villages.
- A scheme for sharing of infrastructure for enhancing rural penetration is in advance stage of finalization.
- Planning made to provide mobile coverage in villages with population more than 5000 by June 2006 & villages with population more than 2000 by December 2006.

### **Broadband**

- Broadband Policy announced in October 2004 with a vision of covering 20 million broadband subscribers by the end of 2010.
- Nation-wide Broadband Services launched by BSNL & MTNL w.e.f. 14.1.2005 to cover 200 towns in one year. The spread now covers 216 towns with about one million connections given out of which share of BSNL/MTNL is 75%.
- To encourage expansion of broadband connectivity at a faster pace, both outdoor and indoor usage of low power Wi-fi and WiMax systems in 2.4 GHz–2.4835 GHz band has been delicensed. The use of low power indoor systems in 5.15 - 5.35 GHz & 5.725 - 5.875 GHz has also been delicensed.

### **Licensing liberalisation**

Several important initiatives have been taken to further liberalize the licensing norms with the objective of making telecom services available at affordable prices.

- FDI Ceiling increased from 49 per cent to 74 per cent in the telecom services.
- Annual licence fee for National Long Distance (NLD), International Long Distance (ILD), Infrastructure Provider-II, VSAT commercial and Internet Service Provider (ISP) with internet telephony (restricted) licences was reduced to 6% of Adjusted Gross Revenue (AGR) w.e.f. 1-1-2006.
- Entry fee for NLD licences was reduced to Rs. 2.5 Crore from Rs. 100 Crore prospectively i.e. date of issue of amendment to the existing guidelines to that effect. Entry fee for ILD be reduced to Rs. 2.5 Crore from Rs. 25 Crore.
- Lease line charges have been reduced to make the bandwidth available at competitive prices to facilitate growth in IT enabled services.
- In respect of states having two telecom circles e.g. Tamilnadu, Maharashtra, U.P and West Bengal, Calls between Chennai and rest of Tamil Nadu, Mumbai

and rest of Maharashtra, Kolkata and rest of West Bengal and Andaman & Nicobar and UP East and UP West service areas treated as Intra service area calls.

- NLD service providers have been permitted to access the subscribers directly for provision of leased circuits/closed user groups and can provide last mile connectivity. The ILD service providers can also access the subscriber directly only for provision of leased circuits/closed user groups.
- Access service providers have been allowed to provide Internet telephony, internet services and broadband services. If required, access service provider can use the network of NLD/ILD service licensee.

### **Tariff Reduction**

- Under the One India tariff plan, BSNL and MTNL have reduced their STD rates to Rs. 1 per minute for any destination in India w.e.f. 1<sup>st</sup> March 2006.
- To facilitate speedy rural penetration entry handsets with a price-tag of Rs. 1700 have been launched. Efforts are on to make it available at about Rs 1000 in a year.
- With a view to make international bandwidth available at competitive rate, BSNL is planning to lay Tuticorin--Sri Lanka submarine cable. It is likely to be made operational in first quarter of 2006-07.
- Project for submarine cable connectivity between India and Singapore, India and Gulf countries, initiated by MTNL and BSNL to provide cost effective international bandwidth.

### **Manufacturing**

The Government has stepped up initiatives to promote manufacturing in the country.

- In the Budget 2005-06, Zero-Customs duty on all import of component and raw materials required for manufacturing telecom equipment including Custom duty on all 217 ITA-1 items to boost manufacturing sector. Mobile phone components were exempted from 4% CVD. Mobile telephone removed from the 'one- out- of- the six criteria' for income tax return purpose
- As a result of constant follow up, various global Telecom & IT companies announced their investment plans of over US\$ 8 billion in Telecom and IT sectors. Proposals implemented/under implementations are of US\$ 620 million in telecom sector.

- AMD has signed a “milestone agreement” with SemIndia to bring semiconductor manufacturing facilities to India. It envisages an investment of US\$3 billion over four years.
- Microsoft Corp will invest US\$1.7 billion in India over four years.
- Intel announced their investment plan of more than US\$1 billion in five years.
- CISCO will invest US\$1.1 billion including US\$750 million for an R & D centre.

## **1.2 Telecommunication Engineering Centre (TEC):**

- (i) TEC is responsible for standardization activities, writing of specifications, Interface Approval and Services test etc. During the period under review, TEC actively participated in the writing of Generic, Interface and Service requirements for various equipments and technologies.
- (ii) TEC is engaged in the Interface Approval/ Validation of the cutting edge technology systems including NIB-II, Synchronous Digital Hierarchy (SDH) and Mobile System based on GSM and CDMA standards, besides others.

1.2.1 The achievement with reference to "Outcome Budget 2005-06" is indicated at *Annexure-"I"*

## **1.3 Wireless Planning and Co-ordination**

- 1.3.1 Spectrum management activities, to meet appropriately the growing requirement of all national wireless users were continued. Spectrum requirements for the fast growing mobile telecom sector in the country are being coordinated with the existing users and frequencies earmarked to concerned service providers. The spectrum requirements of government users including defence services and other privates usages are also being met appropriately.
- 1.3.2 India actively participated in all the activities of International Telecommunication Union (ITU) and Asia Pacific Telecommunity (APT). The WPC Wing provides all necessary support for preparation, participation and follow-up actions for various conferences and meetings of these organizations.
- 1.3.3 The National Preparatory Committee (NPC) for WRC-07, constituted to coordinate and harmonize national views on various agenda items of WRC-07 for formulating Indian proposals for the work of the Conference as well as for finalizing Indian view-points on proposals of other administrations, continued its work through various Working Groups dealing with different agenda items of WRC-07.

- 1.3.4 India participated in the ITU Council 2005, ITU Forum of the Regional Working Group (RWG) on private Sector, 2<sup>nd</sup> meeting of APT Wireless Forum & Workshop on Radio Frequency Identification (RFID) Device in Ubiquitous Environment and ITU-R Working Party 1B under ITU-R Study Group 1, dealing with Spectrum Management and radio monitoring issues.
- 1.3.5 On line receipt of applications through the Web service/computerized system has commenced.

#### **1.4 Wireless Monitoring Organisation**

- 1.4.1 Monitoring Stations continued to monitor the entire radio frequency spectrum for:-
- i) The assessment of degree of interference experienced by any licensed/authorized stations and to take remedial action to eliminate the interference.
  - ii) Adherence of all technical parameters and other conditions as stipulated in the licenses/authorizations ; and
  - iii) Scanning of radio frequency spectrum to locate the unauthorized/unlicensed operations and to take remedial measures/actions
- 1.4.2 Microwave Monitoring Terminals carried out various assignments concerning interference clearances, selection of interference free and mutually compatible site for LOS microwave links, radars, monitoring data collections. It has successfully removed all interference problems reported by various government/non-government wireless users on microwave bands.
- 1.4.3 At some Monitoring Stations fixed/mobile direction finding systems are being used for identifying and locating transmitting stations.
- 1.4.1 Satellite Monitoring Earth Station at Jalna (Maharashtra) is continuing the monitoring of signals from satellites
- 1.4.5 W.M.O. is undergoing major modernization of radio Spectrum Monitoring capabilities through World Bank assisted Telecom. Reform Project. Under this the following has been done:
- o Antenna Towers up to thirty meters in height have been erected for better reception of Radio signal to be used for the sophisticated receiving system coming under the project at Ajmer, Delhi, Chennai, Nagpur, Mumbai, Shillong and Trivendrum. Installation procedure is processing at Ahmedabad, Jalandhar, Goa, Gorakhpur and Bhopal Wireless Monitoring Stations. The installation of the LAN(Local Area Network) comprising of thirty workstations has been completed at Wireless Monitoring Organisation Head Quarters(MHQ), Pushpa Bhawan, New Delhi. The ISDN leased lines between Sanchar Bhawan and MHQ have been connected and communication through these lines is expected to start soon. LAN wiring etc. has been completed at several Wireless Monitoring Stations spread all across India.

- The various sophisticated electronic hardware/software and computer system are continuously reaching the various Wireless Monitoring Stations. These are expected to be integrated with the national system (National Radio Spectrum Management & Monitoring Systems) shortly.
- Under the project, forty-one number of Mobile Wireless Monitoring Stations/Vehicles are being procured. The critical design review of the vehicles is being done vigorously since last year. Number of VHF Mobile Monitoring Vehicle have already arrived at International Monitoring Station, Delhi for acceptance testing.

## **1.5 Universal Service Obligation Fund:**

- 1.5.1** The New Telecom Policy '99 (NTP'99) envisaged provision of access to basic telecom services to all at affordable and reasonable prices. The resources for meeting the Universal Service Obligation (USO) are to be generated through a Universal Service Levy (USL), which would be a percentage of the revenue earned by the operators under various licenses.
- 1.5.2** In keeping with NTP'99, the recommendations of TRAI on the issues relating to the Universal Service Obligation were sought. Based on the decisions taken on the recommendations, the Universal Service Support Policy was framed. The Universal Service Support Policy came into effect from 1.4.2002. The Universal Service Levy presently is 5% of the Adjusted Gross Revenue earned by all the operators except pure value added service providers like internet service providers, voice mail, e-mail etc.
- 1.5.3** The **Indian Telegraph (Amendment) Act, 2003** giving statutory status to the Universal Service Obligation Fund (USOF) was passed by both Houses of Parliament in December 2003. Deemed to have come into force from 1<sup>st</sup> April, 2002, the Fund is to be utilized exclusively for meeting the Universal service Obligation and the balance to the credit of the Fund will not lapse at the end of the financial year. Credits to the Fund shall be through Parliamentary approvals. The **Rules** for administration of the Fund have also been notified on 26.3.2004.

### **1.5.4 \*India USOF in the Global Context:**

The USOF of India is **one of the few operational** USO funds in the world. In contrast to the existence of over 100 operational national Regulatory Authorities in the world, there are probably a dozen or fewer USO funds with an administrative set-up. Amongst these too, India is one of the few countries where disbursement from USOF has actually started.

The USOF of India has **one of the more comprehensive** mandates of operational USO funds. It covers not only existing and new shared access facilities in rural areas, but also existing and new eligible individual household DELs. The USO funds support not only operational expenses for existing facilities, but also cover both capital costs and operational expenses for the new facilities.

The USOF of India is **one of the largest** operational USO funds in the world, next only to USA Federal USO fund.

*(\* Source ITU Project Report (2004) on Implementation of the Universal Service Support Policy in India)*

### **1.5.5 Scope of Support from USOF:**

The scope of the USOF covers rural and remote areas with Public access telephone and individual household telephones in Net High Cost rural and remote areas. It also endeavors to implement universal public access broadband through installation of High Speed Public Tele-Information Centres (HPTICs) in villages with population more than 2000 at Block headquarters. Accordingly, it is planned to take up installation of 5000 HPTICs in the first phase. Data applications including fax, email, tele-education & tele-medicine besides voice telephony will be covered through these Tele-Information Centres.

The Policy also provides for provision of Village Public Telephones in all 6.07 lakh Census revenue villages and provision of additional Rural Community Phones (RCPs) in nearly 46,000 villages with population more than 2000. Replacement of village public telephone on Multi Access Radio Relay Technology installed prior to 1.4.2002 is also covered under the scope of the USOF. The total number of such phones to be replaced is 1.86 lakhs.

### **1.5.6 IMPLEMENTATION STATUS:**

#### **A. Activities Covered**

- Nearly 5.20 lakh Village Public Telephones (VPTs) are already receiving support towards Operation and Maintenance covering more than 90% of the villages with VPTs.
- For the remaining uncovered eligible 66,822 villages including 14,185 remote and far flung villages which can be covered only on Satellite phone. Agreements have been signed with M/s BSNL who emerged as the successful bidder in the tender for which M/s BSNL and M/s Bharati had participated. Insurgency prone villages and those with population less than 100 are not to be covered as per present Policy. Support will be extended towards both Capital as well as Operational expenses for a period of five years from the date of installation of the VPTs. These villages will be covered by 2007 in a phased manner. So far VPTs have been provided in 11,660 uncovered villages.
- Support is also being extended for replacement of 1.86 lakh Multi-Access Radio Relay (MARR) technology VPTs, 1,22,332 of which have already been replaced.
- Agreements have also been signed with M/s BSNL and M/s Reliance Infocomm Ltd. on 30-09-2004 for installation of Rural Community Phones (RCPs) in 46,253 villages with population more than 2000. These are the second Public Telephones which will be provided in a phased manner by 2007. 11,682 RCPs have been provided so far.

## **B. Individual Access**

- Support has been extended to nearly 91 lakh Rural household Direct Exchange Lines (RDELs) installed prior to 1.4.2002 towards the differential between the TRAI prescribed rental and the rental charged by the Service Provider. The support is for the limited period of 1.4.2002 to 31.1.2004.
- Agreements were signed in March 2005, for providing new Rural household DELs in the identified 1685 net cost positive Short Distance Charging Areas (SDCAs) with BSNL (1267 SDCAs), Reliance Infocomm Ltd (203 SDCAs), Tata Teleservices (172 SDCAs) and Tata Teleservices, Maharashtra (43 SDCAs).
- Subsidy at the rates will also apply to the RDELs in the 1685 SDCAs that have been installed between 1.4.2002 to 31.3.2005, agreements for which have already been signed with M/s BSNL and M/s RIL.

## **C. Activities on hand:**

- For the data access facilities viz. Tele Information Centres, initially a pilot project covering 2000 villages with High Speed Tele-Information Center (HPTICs) is under consideration.
- Grant of Subsidy support from USOF towards shareable passive Infrastructure for Cellular Mobile Services in Rural/Remote areas is under examination.

### **1.5.7 DISBURSEMENTS MADE TOWARDS USO AND AVAILABILITY OF FUNDS:**

- The entire budgetary provision of Rs.1814.585 crores allocated for the financial year 2002-03, 2003-04 and 2004-05 was fully utilized.
- A sum of Rs.1750 crores has been allocated for the FY 2005-06, out of which Rs.610 crores have already been disbursed. Subsidy claims for Rs.1225 crores have been received and are being processed. Claims for remaining two quarters would have been received during October 2005 and January 2006. The matter is being taken up with Ministry of Finance for allotment of additional fund of Rs.1160 crores in RE 2005-06.
- In so far as availability of funds is concerned, sufficient funds have been collected by way of contribution from Service Providers towards USO from 1.4.2002. The funds asked for have been kept within the amount accumulated over this period.

## 2. PUBLIC SECTOR UNDERTAKINGS

### 2.1 BHARAT SANCHAR NIGAM LIMITED

This para gives a review of overall performance of the Bharat Sanchar Nigam Limited detailing the targets and achievements during 2005-06 in terms of broad physical dimensions and financial outlays.

**2.1.1** Targets for the current year (i.e. 2005-06): The physical targets for the year 2005-06 (RE) are as follows:

Direct Exchange Lines (Lakh lines)	100.00
Village Panchayat Telephones	12,500
Trunk Automatic Exchange (K lines)	800 KC
Optical Fibre Cables (RKMs)	20,000

2.1.2 During the year Bharat Sanchar Nigam Limited proposes to add 90 lakh lines of GSM connections. The Plan proposes to add 8.0 lakh lines of net TAX capacity for providing long distance connectivity to keep pace with the DELs growth: For providing reliable communication media to all exchanges, setting up of internet backbone and building sufficient bandwidth across the country, it is proposed to provide 20,000 RKMs of OFC system in the Transmission network during 2005-06. BSNL proposes to provide 12,500 VPTs during this year in the country. This will bring VPTs to 531301 villages by the end of 2005-06.

2.1.3. The achievement with respect to "Outcome Budget 2005-06" is indicated at Annexure 'O'

2.1.4 In accordance with the 10<sup>th</sup> Plan objective of introducing advanced technologies and new services of global standards in the field of telecommunication, provision has also been made for technologies / services like ISDN, Broadband, 3G Mobile etc.

2.1.5 Special Component plans focus on accelerated growth and early implementation of telecom facilities in the following areas. Some of these activities are financially non-viable activities, and are taken up by BSNL as directed by the Government, for which suitable financial assistance is sought to be provided by the Government.

- i. North East Region
- ii. Tribal Areas

2.1.6 North East Region Components: NE Region (being a sensitive border area) is being treated as a special focus area in the 10<sup>th</sup> Plan. The erstwhile DTO/DTS provided a special attention to development of telecom facilities in these regions and BSNL continues to provide special attention as well.



During 2005-06 (RE) it is targeted to provide 3.49 Lakh line of net switching capacity, 3.17 Lakh line of DELs, 3949 RKM of OFC and 21 nos of satellite stations. During 2006-07 (BE) it is targeted to provide 3.85 Lakh of net Switching capacity, 3.5 Lakh lines of DELs, 4300 RKM of OFC and 23 Satellite Stations.

2.1.7 Tribal Sub-Plan: Tribal areas in the country were being treated as special focus area by the DOT/DTS/DTO during the 9<sup>th</sup> Plan period. The BSNL continues to do so. The main objectives of the Tribal Sub-Plan are –

To provide telephone facilities on demand in tribal areas and to provide public telephones in all tribal villages.

Annual Tribal Sub-Plan 2004-05 (RE) envisages provision of 1.33 Lakh lines of Switching capacity, 1.27 lakh lines of DELs 2106 RKM of OFC, 4111 nos. of VPTs alongwith 17 nos of Satellite stations . In 2006-07 (BE) it is planned to provide 1.5 Lakh lines of Switching capacity, 1.4 Lakh lines of DELs, 2300 RKM of OFC and 4000 VPTs in tribal areas.

2.1.8: The financial outlay in respect of BSNL are given below:

BE	2005-06	Rs.9696
RE	2005-06	Rs.15463
BE	2006-07	Rs.16931

2.1.9 FUNDING: The company generates funds from its Internal Resources, Bonds/Debentures apart from the budgetary support given by the Government. The Internal Resources and bonds/debentures component during the current financial year 2005-06 are to be to the tune of Rs.13688 crores and Rs.1775 crores respectively. The Internal Resources and bonds for the year 2006-07 are Rs.13276 crores and Rs.3655 crores.

Besides the company will be getting reimbursement of License Fee and Spectrum Charges amounting to Rs.616.67 crores during 2005-06. A statement showing break-up of working expenses is given at Annexure "A". Summary of Profit & Loss Account and Balance Sheet of the Company are at Annexure "B" and "C".

## **2.2 MAHANAGAR TELEPHONE NIGAM LIMITED**

### **2.2.1 PERFORMANCE HIGHLIGHTS**

#### **2.2.1.1 PLAN TARGETS/ACHIEVEMENTS 2005-06**

2.2.1.2 In 2005-06, Company is likely to earn revenue of Rs.5583.78 crores. After meeting the working expenses (including payments for network charges and license fees), Depreciation, Interest, Corporate Tax and Dividend, Company would yield a net surplus of Rs.102.37 crores, which together with other internal resources would meet the planned expenditure.

2.2.1.3 The revenue of the Company in 2006-07 is estimated at Rs.5812.52 crores, which after setting off the working expenses etc mentioned above would yield an estimated net surplus of Rs.35.45 crores.

2.2.1.4 The Company has recognized that IT is the key to future business success. It has been implemented as the backbone for running customer friendly services such as customer Services Management System (CSMS), Fault Repair Service, Directory Enquiry, Financial Management System and Interactive Voice Response System, etc. A number of web-based solutions have been incorporated to enhance customer care. Company has also started the business of Certifying Agency (CA).

2.2.1.5 Having achieved the telephone on demand situation in both the cities, the main thrust of Company in 2006-07 will be customer satisfaction and introduction of new services/schemes for customers benefit. Action will be taken to generate fresh demands by innovative marketing strategies and better customer care. Few steps/new services are proposed as follows:

- MTNL will expand its cellular mobile services (Both GSM & CDMA) in Delhi and Mumbai. MTNL has planned to add 20 lakh net switching capacity. MTNL will setup IP/MPLS based Broad Band backbone network in Delhi and Mumbai.
- MTNL will introduce new technology equipment such as Next generation Network (NGN) in the network.
- MTNL will deploy additional broadband access equipment using broadband DLC/DSLAM. MTNL targets to deploy 5 lakh additional broadband ports.
- MTNL plans to provide triple play services (High Speed Internet, Broad Cast TV, Video) on copper using DSL.
- MTNL will setup state of art convergent billing and CRM system for issuing single bill for all type of services offered by MTNL and to meet the concept of single window for all types of customer needs.
- MTNL will setup ILD gateway system.
- MTNL will introduce 3G mobile service subject to availability of spectrum for the same.

2.2.1.6 A summarized statement of Profit and Loss and Balance Sheet for actuals 2004-05, BE 2005-06, RE 2005-06 & BE 2006-07 are shown in Annexure-‘D’ and ‘E’ respectively.

2.2.1.7 The achievement with respect to "Outcome Budget 2005-06" is indicated at Annexure 'P'

## **2.3 ITI LIMITED**

**2.3.1** The paid-up Share Capital of the Company as on 31.03.2005 is Rs.588 Crores, consisting of Rs.288 crores Equity Shares and Rs.300 Crores Cumulative Redeemable Preference Shares. Out of the equity shares 92.87% is held by Government of India and 0.11% by Government of Karnataka and 7.02% by financial institutions and others. The Preference Shares are held by M/s Mahanagar Telephone Nigam Limited and M/S. Bharat Sanchar Nigam Limited. Till 31.03.2005, the Government of India has disinvested 2,02,19,310 shares of Rs.10/-

each including 9,81,310 shares of Rs.10/- each (face value) at the price of Rs.59/- to employees during 1994-95.

- 2.2.2 For the year 2005-06 as per MOU Level 2 the Company has targeted a production of Rs.3938 Crores (including excise duty) with a profit estimate of Rs.72 Crores. Taking into account the order availability as also expected orders the production target for RE 2005-06 and BE 2006-07 are Rs. 3938 Crores (incl. ED) and Rs.4261 Crores (incl. ED) respectively. The company has estimated a profit of Rs.72 crores for RE 2005-06 and a profit of Rs.110 crores for BE 2006-07. In the workings for RE 2005-06 and BE 2006-07 assistance for VRS as sanctioned to the company in the revival plan by the Government have been reckoned.
- 2.3.3 During 2004-2005 the company has incurred the capital expenditure of Rs.62 Crores out of the planned outlay of Rs.120 crores as the company was extremely short of funds. Against this capital expenditure a grant of Rs. 50 Crore was received from Govt. as a part of the revival package. The proposed Capital Outlay for RE 2005-2006 and BE 2006-07 is Rs.120 Crores and Rs.100 Crores respectively. For the years 2005-2006 and 2006-2007, the company is seeking budgetary support of Rs.120 crores in 2005-06 and Rs.100 crores in 2006-07 to meet the capital expenditure requirement.
- 2.3.4 The statement of summarized Profit & Loss Account Balance Sheet for RE 2005-06 and BE 2006-07 are at Annexure "F" & "G". Production performance (physical) of 2005- 06 and target 2006-07 is at Annexure 'H'.

## **2.4 Telecommunication Consultants India Limited**

2.4.1 In spite of various constraints Company has made efforts to expand its base in new countries, IT related projects and other diversified areas of operation like Road construction. The company has been awarded FTTH project in Kuwait, National Internet backbone project from BSNL, Establishment of vessel traffic monitoring system in the Gulf of Kachchh, GSM-R project for Eastern Railway. The company has also been awarded a contract from NHAI for Rs.166.72 cr for construction of Road in North East. The company is to sign a contract for Pilot Project in Ethiopia for e-medicine and e-education worth US\$ 2 million. On successful completion of the pilot project, company will be awarded work of US\$ 67 Mn for 53 more African countries. The company is also in dialogue with MEA for e-education project in Asian countries. Company has also been awarded Jharpole Project for Rs.42 crs for e-Governance.

### **2.4.2 PROFITABILITY OF PROJECTS**

Keeping in view the prospects for the year 2005-06 and various constraints discussed in the following paras, the Profit for the year 2005-06 has been reduced to Rs.5.15 Crs. This is due to reduced margins in almost all the projects. In this year most of the projects in the high-tech areas (OPGW Project in Algeria, CDMA in Afghanistan, O&M Satellite and GSM in KSA) are with reduced margins. Budgeted profit before tax for 2006-07 is estimated to Rs.11.23 crs. Most of the projects in high tech areas have been obtained under stiff competitions.

### **2.4.3 ORDER BOOKING 2005 –06**

During the year 2005-06, till Sept 2005, Company has secured orders of Rs.247.92 crs. The major orders booked during the year are as under:

1. GSM O&M Contract in KSA valuing Rs. 11.70 crores
2. Contract for supply of material and staffing to UN valuing Rs. 9.16 crs.
3. Contract from National Highway Authority of India for Rs.166.72 crs
4. Supply & Installation of Towers, Shelters and Power Supply Equipment to Bhutan for Rs.9.85 crs.
5. Contract for Supply & Installation of Equipment for Ministry of Transport, Afghanistan valuing Rs. 2.26 crs.
6. Pilot Project for e-education and e-medicine for Ethiopia valuing Rs. 9 crores.

### **2.4.4 PROJECT EXPORTS**

#### **2.4.4.1 PERFORMANCE HIGHLIGHTS 2004-2005**

Project Exports during the year were Rs. 327.08 crores . which has been the highest proportion of exports to total project income viz 78% (as against 76% of last year). Following projects were successfully completed:

- i. East West Optical Fiber Cable Project, Nepal worth Rs.72.56 cr within target date in spite of severe constraints due to insurgency and natural calamities.
- ii. Construction of outside plant for Nazareth and Dire Dawa for ETC, Ethiopia valuing Rs 30.45 Cr.
- iii. Satellite O&M Project with STC, KSA valuing Rs.13.53 Crore
- iv. Multi order contract for Civil Engineering & Cabling works in Mauritius valuing Rs 3.78 Crore.
- v. Communication Cabling Infrastructure for Ebene Cyber City in Mauritius worth Rs.3.78 Cr.
- vi. Modernization and extension of network of Urban Community, Niamey, Niger for US\$ 2.9 Mn. (Rs. 13.75 crs).
- vii. Supply and Service contracts for UNO works worth Rs.81 Crs.

#### **2.4.4.2 PRESENT COUNTRIES OF OPERATIONS**

Company continues to operate in Kingdom of Saudi Arabia, Algeria, Afghanistan, Mauritius, Kuwait, Botswana, Ethiopia, Niger, Nepal, Oman, Bhutan, Libya, Ghana and United Nations Projects.

#### 2.4.4.3 PROJECTS IN PROGRESS

Following major projects are in progress :-

- a) Contract for Copper Access Network – total value USD 60 Mn. (Rs.279 Crs) in Ghana.
- b) Supply and installation of pay phones and sub –system management in Ghana worth Rs.3.87 Cr.
- c) Stringing of OPGW cable for a country wide back bone telecommunications network over forty no. 220 KV power transmission lines covering a total distance of about 3000 kms. throughout Algeria. Project is in 4 lots valuing Rs.96.92 crs.
- d) Supply and installation of lashed cable in Algeria valuing Rs.20.44 crs
- e) Construction of 60 KV and 220 KV power transmission lines in Algeria valuing Rs.29.91 crs.
- f) Architectural Consultancy to MPTC ( Ministry of Posts, Telecommunications and IT) for construction of four Buildings ( Incubator, telecommunications Complex, Cyber Post and CETRIC) at the Cyber Park at Algiers valuing Rs.3.67 crs
- g) Eastern Corridor Project of optical fibre cable plant and associated civil works in Botswana valuing Rs.6.61 crs.
- h) Second phase of the GSM Project in Bhutan valuing Rs.1.78 crs.
- i) GSM O & M Project in Saudi Arabia valuing over Rs.54.94 crs.
- j) Satellite O & M Project in Saudi Arabia valuing Rs.9.42 crs.
- k) 450K OSP Projects in Saudi Arabia valuing Rs.9.81 crs.
- l) GSM RSI Project in Saudi Arabia valuing Rs.1.76 crs.
- m) OSP Projects in Oman valuing Rs. 6.52 crs.
- n) 6 Governates in Kuwait valuing Rs. 126.65 crs.
- o) Maintenance of telecommunication services of Kuwait Oil Company valuing Rs.24.40 crs.
- p) Supply, installation and maintenance of FTTH equipment and fibre optic cable in Kuwait valuing Rs. 78.64 crs.
- q) New Subscriber Line Contract and Preventive Maintenance Contracts in Mauritius for Rs. 8.56 crs and Rs. 4.88 crs. respectively
- r) PDH MW Radio Relay System in Nepal valuing Rs. 7.84 crs.
- s) Emergency Restoration of Telecommunication System in Afghanistan valuing Rs. 48.10 crs.
- t) Jharnet and Modernisation of Jharkhand Police Communication System valuing Rs. 2.54 crs.
- u) Road Construction Projects valuing Rs. 175 crs.
- v) Supply and Service Contracts from United Nations valuing Rs.158 crs
- w) GSM-R Project for Eastern Railway for Rs.14.46 crs
- x) National Internet Backbone for BSNL for Rs.214.00 crs.
- y) Establishment of vessel Traffic Services System in the Gulf of Kachchh for DGLL for Rs.117.42 crs.

## 2.4.5 INVESTMENT IN JOINT VENTURES

As on 31.3.2005, Company has a total investment in joint venture companies as under :

	( Rs in crores)
Hexacom India Limited (a JV for operation of Cellular Services)	- 53.76
TCIL Bell South Limited	- 00.84
TSCIL	- 00.67
ICSIL	- 00.36
Telecom Consultant Nigeria Ltd.	- 00.01
Tamil Nadu Telecom Ltd.	- 6.95
UTL Nepal	- 23.34
	-----
	<u>85.93</u> crs.

### 2.4.6.1 PROPOSED PROVISION FOR EXISTING JOINT VENTURES UNITED TELECOM LTD., NEPAL

UTL , Nepal, has launched its WLL based services in Nepal. It has subscriber base of 31,000. TCIL 's investment in the company is estimated at Rs. 32.5 crs. TCIL has already made an investment of Rs. 23.34 crs. The remaining investment of Rs. 9.16 crs. shall be made in the year 2006-07. As such, in Budget Estimates, a provision of Rs. 9.16 crs. has been proposed.

### 2.4.6.2 NEW JOINT VENTURE

#### (i) JV in Oman

Company has been executing projects in Oman since 1986. As per local law requirement now, a JV company is required to be incorporated to take up the local business there. For participating in the equity of the JV, a provision of Rs. 1.00 cr. has been made each in the year 2005-06 and 2006-07.

#### (ii) New JVs for acquiring Equity in Telecom Administrations abroad

Company has plans to bid for telecom business accordingly provision for Rs.5 crs in 2005-06 and Rs.10 crs in 2006-07 has been proposed.

Provision for JV and Branch Investments in brief are as under :

	( Rs. in crs.)	
	RBE 2005-06	BE 2006-07
New JVs	5.00	10.00
UTL Nepal	-	9.16
JV in Oman	1.00	1.00
Total	6.00	20.16

### **3. Gender Budget**

In accordance with the National Policy for Empowerment of Women adopted in 2001, steps are being taken by the Department of Telecommunications, its Autonomous Bodies and PSUs to achieve the goals of gender mainstreaming and gender justice. Gender budget initiatives analyze how Government rise and spend public money, with the aim of securing gender equality in decision making about public resource allocation and gender equality in the distribution of the impact of Government's budget, both in their benefits and burdens. All measures are being taken to ensure that the benefits of ongoing schemes and programmes like training facilities, transport, security etc. are passed on to the women employees.

Women employees play very important role in all the activities in C-DOT. The centre has always encouraged women to become equal partners in the shaping up of the destiny of the organization. Women constituted 30.85% of the total workforce as on 31/03/2005 (28.49% as on 31/03/2004). Nearly 53% of these women employees were engineers and were occupying Executives positions.

To encourage and help women employees, crèches/schools, tailoring centre are being run/maintained by voluntary Telecom Women Organisation in BSNL/MTNL. Moreover, Mahanagar Telephone Nigam Limited also organizes a series of workshops through YMCA Delhi for women employees to sensitize them regarding gender issues.

ITI Ltd also provides facilities to the women such as separate lunch room in the Canteen, provision of crèche, transport facility etc. The company also have a comprehensive health care scheme. Hospitals have been set up in various units of the company which emphasize women and child welfare. Care is taken to ensure that the women employees are nominated for training programmes which are need based. Many of the women employees of the company have been awarded with Shram Devi Awards.

In Telecommunications Consultants of India Limited women are imparted training for their skill up gradation along with other employees. Special training programmes are also arranged for them. Women are given due representation in various committees. They are also considered as floor warden's for up-keep of floors and several women warden(s) are rewarded under this scheme. There is one committee named TCIL Women Welfare Samiti which is committed for the welfare and development of its members.

The total number of women employees in the Department of Telecommunication including PSUs was 52950 which was 13.11% of the total strength as on 31<sup>st</sup> March 2004.

## Chapter IV

### REVIEW OF PERFORMANCE OF STATUTORY AND AUTONOMOUS BODIES

#### 1. Telecom Regulatory Authority of India (TRAI)

##### 1.1 Major Policy Initiatives Taken by TRAI during 2005-06 (April 2005 to November, 2005):

- (1) Recommendations on publication of Telephone Directory & Directory Enquiry Services,
- (2) Recommendations on Spectrum Issues,
- (3) Recommendations on Issues relating to Virtual Private Network (VPN) Services by ISP Licensees,
- (4) Recommendations on Growth of Telecom Services in Rural India,
- (5) Revision of Ceiling Tariff for Domestic Bandwidth,
- (6) Revision of Ceiling Tariff for IPLC,
- (7) Measures to Protect the Interest of Consumers.

##### 1.2 Major Issues on which TRAI is presently working and which are likely to be completed during December 2005 to March 2006:

- (1) Recommendations on Measures to Promote Competition in International Private Leased Circuits (IPLC) in India,
- (2) Recommendations on issues relating to Transition from IPv4 to IPv6 in India,
- (3) Recommendation on various Technical and Regulatory Issues relating to Next Generation Networks (NGN),
- (4) Recommendations on Mobile Number Portability,
- (5) Review of Interconnect Usage Charges (IUC) and Access Deficit Charges (ADC),
- (6) Release of Consultation Paper on Mobile Virtual Network Operators (MVNOs),
- (7) Release of Consultation Paper on Fixed Mobile Convergence,
- (8) Regulation/ Direction on Billing Issues,
- (9) Regulation on IN Services in multi-operator, multi-service environment,
- (10) Report of the Expert Group constituted by TRAI to put in place a supplementary system to monitor and address the under-reporting of international call minutes and changing of CLI of incoming ILD calls by Service Providers,
- (11) Framing of regulatory guidelines on charging of late payment fee,
- (12) Review of Tariff Reporting Requirements for Corporate and SME tariff plans,
- (13) Review of Roaming Tariff in Mobile Services.



1.3 The achievement with respect to the "Outcome Budget 2005-06" is indicated at Annexure-"L"

## **2. Telecom Disputes Settlement & Appellate Tribunal (TDSAT)**

2.1 TDSAT has delivered some land mark judgments in the cases that had been brought before the Tribunal for adjudication. Expeditious disposal of cases and comprehensive nature of the judgments pronounced by the Tribunal resulted in drastic reduction of pendency and has led to the evolution of case law in the telecom sector, which would provide valuable guidance to the stakeholders in the future. The Tribunal has also organized two national level seminars on 3<sup>rd</sup> September and 8<sup>th</sup> October 2005 in Jaipur and Hyderabad respectively. The Seminars were organized to bring awareness amongst various stake-holders including consumers about the disputes resolution mechanism in the telecom, broadcasting and cable sectors and to find ways and measures to strengthen the system for consumer protection in these sectors. The seminars have been well received by all concerned and have evoked very good response. These seminars have been successful in bringing about greater awareness and clarity in the area of disputes resolution under TRAI Act, 1997 vis-à-vis other enactments in India.

2.2 TDSAT has also become Sector Member of International Telecommunication Union (ITU) and in its capacity as sector member has been participating in the international seminars, conferences and events organized by ITU and other international bodies.

2.3 The achievement with respect to the "Outcome Budget 2005-06" is indicated at Annexure -"M"

## **3. CENTRE FOR DEVELOPMENT OF TELEMATICS (C-DOT)**

### **3.1 THE FOCUS OF R&D WORK DURING 2005-2006**

The Annual Business Plan of the Centre for the year envisages the following R&D Activity:

#### **3.1.1 Rural Wireless Access & Broadband solution**

During the year, this project will be tried in the field. Also, the various sub-systems including software radio GSM basestation, pre-WIMAX/E1 Backhaul etc. will also be demonstrated.

#### **3.1.2 Network Management System**

The NMS for Tax & GSM will be proliferated in the Network.

#### **3.1.3 Gigabit Passive Optical Network**

This access technology for delivery of Broadband Services to subscribers will be initiated through a Pilot trial with MTNL.

#### **3.1.4 Next Generation Network**

This Project is expected to provide a VOIP Switch along with Media Gateway, a soft switch, signaling gateway and NMS in 2K VOIP reports configuration in the field.

### 3.1.5 Call Interception & Intelligence System

LEIF & LEMF for packet switched Network will be developed and Field Tested.

### 3.1.6 Coarse Wavelength Division Multiplexing System

The Development of 8 Channel Wavelength Division Multiplexing to be completed and Field tested.

### 3.1.7 Initiatives for Development of New Technologies

To give organizational Framework to the MOU, signed during the preceding year with M/s Alcatel.

### 3.1.8 Housing & hostels for Engineers in the New Campus at Delhi

This work was to be taken up, subject to approval of the Municipal Authorities.

## **3.2 ACHIEVEMENTS DURING 2005-2006 (April '05 to Sept'05)**

**3.2.1 Advanced IN (AIN)** - First phase of pre-paid IN services for pre-paid wireless subscribers (V5.2 & CDMA subscribers) is ready for deployment in the field. Development work is in-progress for a generic IN for wireless (WIN) for CDMA subscribers, IP (Intelligent Peripheral) development, & SCEP (Service Creation Environment Point).

### **3.2.2 Cell & Packet Technologies for Voice & Data Convergence**

- The development work is in progress for conducting pilot trial class 4 VoIP network with strategic partners in 3Q05-06.
- Design & implementation is also in progress for IP/MPLS (Intelligent Peripherals / Multi-Protocol Label Switching) router, VoIP trunk media and signaling gateways for C-DOT integrated NGN (Next Generation Network).
- Trial is expected in 4Q 05-06, as planned. Activities are also in progress to customize ATM (Asynchronous Transfer Mode) NIU for network reliability and optimization

## **3.3 HIGH BIT RATE NETWORK BACKBONE ON FIBRE & SATELLITE**

- Field installation activities are in progress for DWDM system to commence its field trial towards end of 2005-06.
- Validation / testing activities are in progress for broadband satellite system in Ku band. Pilot trial is expected to commence by end of 3Q05-06.
- Design implementation in progress for CWDM system.
- C-DOT has signed MoU with a strategic partner to take up the development for some of the sub-system of G-PON (Gigabit – Passive Optical Network) and the requirement study is in progress for the same. The trial is anticipated in 2006-07 for G-PON, as initial MoU activity and chip set availability was delayed.

## **3.4 INNOVATIVE SERVICES FOR BUSINESS & INDUSTRY**

- TAX NMS deployment activities in the field are in progress
- Field trial is in progress for GNMS with 32 nodes across the country. Design & development activities are also in progress for clearing house applications for national roaming as part of OSS enhancements.
- CIIS, design has been completed for Law enforcement interception function(LEIF) for voice, fax and data interception and Law enforcement monitoring function (LEMF) is in advance stage of development.

### **3.5 WIRELESS & MOBILE COMMUNICATION**

- Design work for indigenization of various sub-systems is in progress. Integrated pilot trial of C-DOT rural wireless and broadband access system is expected to commence in 4Q05-06.
- Commencement of pilot trial is primarily possible only after fixing the spectrum for its usage in 5.7Ghz band initially. Efforts are on in this regard.

### **3.6 Technical Support Services – Product support enhancements / Field support**

- C-DOT continued to provide Product Support to the existing network in the field by retrofitting and imparting Training to Field Staff, wherever required. During first six months of FY 2005-06, the enhancements / technology approvals etc. are as follows.
- New MAX software release, namely, 2216 (7.7), catering to stability issues of CCS #7, V5.2 etc. in the field and other subscriber related feature enhancements completed its TEC testing. The field trial for the same also completed successfully at Salem in the Tamilnadu circle of the BSNL network. Approval for the software link is received for its propagation in all the C-DOT exchanges working in the BSNL network.
- C-DOT 256P RAX's new software version, namely, 5-1-3 with new feature enhancements like line-monitoring feature, analysis of all the seven digits of the route code and charging at different rate for CCB non-home metered subscribers etc., were completed successfully. With TEC testing and the field trial at Shimla and Pachpeda (Meerut) in the BSNL network.
- Approval for new software version ANR-FO2-012.2 for the C-DOT 256P AN RAX has been granted by TEC after successful testing and field trials at 8 sites of AN RAXs connected to C-DOT MAX-XL at Salem (Tamilnadu) in the BSNL network. The new software supports auto restoration of C-DOT AN RAX and thus eliminates the need of giving manual reset to AN RAX for restoration of the link.

### **3.7 C-DOT AN RAX has been enhanced with following new capabilities:**

- Auto restoration of link (to eliminate manual reset operation as required in previous version). The software version ANR-FO2-012.2 supporting the same successfully completed the TEC testing and the field trial at 8 sites of AN RAXs connected to C-DOT MAX-XL at Salem (Tamilnadu) in the BSNL network and approval accorded for its propagation at sites
- ISDN capability with development of additional Compact ISDN Terminal Unit hardware (CIT) as a separate set-top box and the complete system is named as AN-RAX (ISDN). The system with software version ANR-FO2-110 has been accorded technology approval after successful completion of its TEC testing and field trial with OCB-283 and C-DOT SBM-VE as Local Exchanges. The existing C-DOT 256P RAXs and AN RAXs in the field can be upgraded with the ISDN capability.

### **3.8 C-DOT - Alcatel Research Center (CARC)**

- Pursuant to the MoU signed between C-DOT & Alcatel, the C-DOT-Alcatel Research Centre was set up in Chennai in September 2005. It is a Joint Venture of Alcatel CIT, France & C-DOT with a shareholding of 51% from Alcatel & 49% from C-DOT.
- The focus areas for research in the CARC will relate to WiMAX (IEEE 802.16e standard), future R&D on new wireless broadband solutions etc.

### **3.9 BENEFITS FOR PERSONS WITH DISABILITIES**

- As in the past, adequate encouragement was given during the year 2004-2005 also to differently enabled persons.
- The new R&D Complex at Delhi, which was occupied during June'2004, has all necessary facilities like exclusive elevators for differently enabled persons, ramps connecting two levels of the working areas etc. These facilities enable such persons to move freely from one wing to another of this intelligent R&D Complex.

### **3.10 FUTURE ROADMAP OF C-DOT**

- 3.10.1 During 2006-2007, the Centre proposes to undertake the following measures so that it continues to perform its role as a national Centre for excellence in telecom R&D;
- To continue the process and efforts made during the preceding year for re-orienting the R&D work of the Centre, so that it meets the emerging technological and market scenario.
  - To endeavour & strengthen its role by working in futuristic technology areas as well as remain contemporary.
  - To so orient its R&D Work, that it caters to the social needs of the Country including projects specially required for the North Region of the Country. To select and work on appropriate technology with emphasis on Rural areas of the country, so that the digital divide is bridged in the shortest possible time.

- To also select and work on appropriate technology so as to fulfill the objectives of “Bharat Nirman” Programme of the Govt. of India.
- To also undertake technological work in co-operation with the world leaders in the field, so that cost-effective market oriented solutions are made available to the service providers in the country.

3.10.2 As a consequence of the above objectives, the Centre will lay emphasis on the following technologies:

- Rural Communication
- Wireless Communication
- Broadband Communication
- Value Added Service
- Strategic Alliances & Joint Ventures

### **3.11 FINANCIAL STATEMENTS:**

- The Summarized Balance Sheet of the Centre as on 31/03/2005 is enclosed as Schedule 1.
- The Summarized Income & Expenditure Account for the year ended 31/03/2005 as Schedule 2.
- The Annual Plan for 2006-2007 is enclosed as Schedule 3.

**3.12** The achievement with respect to the "Outcome Budget 2005-06" is indicated at Annexure-"N"

**CENTRE FOR DEVELOPMENT OF TELEMATICS**  
**SUMMARISED BALANCE SHEET As on 31/03/2005**

(Rs./Crores)

Sl. No.	Particulars	As on 31-03-2005
	<b>SOURCES OF FUNDS</b>	
1.	Grants-in-Aid	994.42
	Net Revenue Expenditure	726.28
	Net Balance	268.14
2.	Reserves & Surplus	3.47
	<b>TOTAL</b>	<b>271.61</b>
	<b>APPLICATION OF FUNDS</b>	
3.	Assets	
	Gross Block	296.89
	Depreciation	231.25
	Net Block	65.64
4.	Asset-in-Transit	0.12
5.	Capital Item in Stock	1.99
6.	Capital Work-In-Progress	82.94
7.	Current Assets, Loans, Advances & Deposits	132.13
8.	Current Liabilities & Provisions	11.30
9.	Net Current Assets(7-8)	120.83
10.	Deferred Revenue Expenditure to the extent not written off or adjusted	0.09
	<b>TOTAL</b>	<b>271.61</b>

**Schedule 2**

**CENTRE FOR DEVELOPMENT OF TELEMATICS**  
**SUMMARISED INCOME & EXPENDITURE FOR THE YEAR ENDED**  
**31/03/2005**

*(Rs./Crores)*

Sl. No.	Particulars	For the year ended on 31/03/2005
<b>1.</b>	<b>INCOME</b>	
	TOT/Royalty FSR Publication Etc.	25.68
	Interest Earned	1.19
	Other Income	1.74
	<b>TOTAL OF 1</b>	<b>28.61</b>
<b>2.</b>	<b>EXPENDITURE</b>	
	Establishment Expenses	37.10
	Operational Expenses	11.62
	Other Administrative Expenses	17.77
	Depreciation	20.56
	<b>TOTAL OF 2</b>	<b>87.05</b>
3.	Excess of Expenditure over Income for the year	58.44
4.	Adjustments pertaining to Earlier years	3.84
5.	Excess of Expenditure over Income(3+4)	62.28
6.	Excess of Expenditure over Income of Earlier Years	664.00
7.	Deficit Carried to Corpus/Capital Fund	726.28

**SCHEDULE 3****CENTRE FOR DEVELOPMENT OF TELEMATICS****ANNUAL PLAN 2005-2006****(Rs./Crores)**

	<b>Actuals 2004-2005</b>	<b>Budget Estimates (BE) for 2005-2006</b>	<b>Budget Estimates (RE) for 2005-2006</b>	<b>Budget Estimates (BE) for 2006-2007</b>
<b>(A) Recurring Expenses</b>				
A1 Salary & Staff Benefits	31.10	35.57	33.57	35.00
A2 Travel Expenses	1.85	1.29	1.29	1.90
A3 Rent on Residential Accommodation to Staff	5.03	5.05	5.05	5.50
A4 Office Associated Expenses	23.26	28.06	28.06	29.00
<b>Total Recurring Expenses</b>	<b>61.24</b>	<b>69.97</b>	<b>67.97</b>	<b>71.40</b>
<b>B Consultancy, Components &amp; Equipments</b>	<b>19.24</b>	<b>51.43</b>	<b>40.43</b>	<b>30.30</b>
<b>C Land &amp; Building</b>	<b>15.73</b>	<b>10.00</b>	<b>10.00</b>	<b>5.00</b>
<b>D Participation in Joint Venture with Alcatel</b>	<b>0.00</b>	<b>0.00</b>	<b>13.00</b>	<b>26.00*</b>
<b>TOTAL (A+B+C)</b>	<b>96.21</b>	<b>131.40</b>	<b>131.40</b>	<b>132.70</b>

**NOTES**

*\* This will be comprising of Equity and Loan in equal proportions.*



## CHAPTER V

### Detailed Performance

#### 1.0 DEPARTMENT OF TELECOM

This chapter explains the scope, objectives and achievements of the projects, programmes and schemes of the Department and the TEC, WPC, WMO, and C-DOT, which are attached to the Department of Telecommunications. The detailed performance (both physical and financial) of the PSUs attached to the Department of Telecommunications whose plan outlays are not included in the Budget of the Department are given in the Annexure.

**1.1** The Department of Telecommunications handles policy matters for development of the telecom sector in the country, licensing of telecommunications services, radio frequency management and management of India's relations with the external telecommunications world. It also oversees the functioning of the PSUs under its administrative control.

**1.1.1** There are about 130 million telephone connections as on 31<sup>st</sup> January 2006 with about 48 million fixed line subscribers and 82 million mobile subscribers. The tele-density has increased from 1.28 per hundred populations in 1996 to 11.75 per hundred population by 31<sup>st</sup> January 2006.

**1.1.2** In order to fulfill commitment to provide access to all people for basic telecom services at affordable and reasonable price Universal Service Fund was set up w.e.f. 01.04.2002. An Administrator, Universal Service Fund for implementation of the Universal Service Support Policy, has been appointed w.e.f 1.6.2002.

**1.1.3** The Investment Policy Cell in this sector is associated with the following main activities:

- Assistance in formulating foreign investment policies and procedures in telecom sector
- Formulating policy and guidelines on Foreign Direct Investment in the telecom sector-maintenance of database on FDI in various sectors
- Processing applications for foreign investment and foreign technology in the telecom sector
- Providing assistance in formulation of import & export policies for the telecom sector- Cases relating to Advance License/ Special Import License/ EPCG etc.
- Promotion of telecom exports
- Providing assistance policy formulation in matters related to customs & excise duties and other direct and indirect taxes for the telecom sector.
- Promotion of Telecom Equipment Manufacturing in the Country:
  - (i) Policy for Telecom Manufacturing
  - (ii) Monitor proposals of foreign investment in telecom manufacturing
  - (iii) Inter-Ministrial Coordination in FDI in telecom manufacturing

- (iv) Interaction with Business Councils/Industry Associations/India Investment Centre/Foreign Chamber of Commerce/BRIs/Other Government/Semi-Government bodies concerned with Investment promotion in Telecom Manufacturing.
- (v) Organisation of DoT stalls at National exhibitions.

Presently, 100% FDI is permitted in the manufacturing sector under automatic route. 100% FDI is also permitted in Internet Services without gateway, Infrastructure Provider-I, E-mail and Voice-mail Services. 74% FDI is permitted in Internet Service with gateway, Infrastructure Provider-II and Radio Paging Service. In National/International Long Distance, Basic, Cellular Mobile and other Value Added Services, FDI ceiling has been raised from 49% to 74% subject to licencing and other regulatory guidelines.

WTO matters are relating to Multilateral Bodies dealing with Telecommunications.

**1.1.4 Licencing Regulations (LR) Cell** of the Department of Telecommunications deals with the following matters/services for the purpose of licencing and policy related issues:

- Internet Service.
- Internet service including Internet Telephony.
- VSAT licence for commercial use.
- VSAT licence for captive use.
- INSAT MSS Reporting Service.
- Broad Band Services
- Other Captive Networks.( Optical fibre/Microwave dedicated links and VPN networks)
- The Inter-ministerial coordination work on various IT related subjects viz.security of the IT networks, issues regarding e-governance.
- All other IT related activities of the Department of Telecom.

#### **1.1.4.1 Internet Service**

- ISP policy is one of the most liberal Telecom Policy. Licenses for Internet Service Providers are issued after announcement of ISP Policy on 6<sup>th</sup> Nov., 1998. from 1<sup>st</sup> April, 2002, ISPs have also been allowed to offer Internet Telephony Service after obtaining permission of the Telecom Authority
- As per 31.12.05 there are 393 ISP licensees out of which 133 licensees have been permitted to offer Internet Telephony on their request.
- ISPs are permitted to set up their own gateways using satellite or Submarine cable medium after getting security clearance.

#### **1.1.4.2 Broadband Services**

Recognizing the potential of ubiquitous Broadband service in growth of GDP and enhancement in quality of life through social applications including tele-education, tele-medicine, e-governance, entertainment as well as employment generation by way of high speed access to information and web-based communication, Government have finalised a policy to accelerate the growth of Broadband service.

##### **1.1.4.2.2 Benefits of Broadband**

Benefits from Broadband are on account of new applications that combine voice, video, data and interactivity and also due to enhancement of current Internet applications. The benefits of the broadband therefore can be summarized as below:

- (i) Growth in National Income
- (ii) Employment opportunities and economic benefits arising out of tele-working
- (iii) E-education
- (iv) Tele-medicine
- (v) Video conferenceing
- (vi) Digital entertainment
- (vii) Faster web search
- (viii) E-commerce

##### **1.1.4.2.3 Broadband Policy, 2004**

The government announced Broadband Policy, 2004, on 14<sup>th</sup> October, 2004 with a view to provide impetus to broadband and Internet penetration in the country. The prime consideration guiding the Policy includes affordability and reliability of Broadband services, incentives for creation of additional infrastructure, employment opportunities, induction of latest technologies, national security and bring in competitive environment so as to reduce regulatory interventions. The new policy encourages creation and growth of infrastructure through various access technologies which can mutually co-exist like optical fibre technologies, digital subscriber lines on copper loop, cable TV network, Satellite and terrestrial wireless technologies. The choice is left to the service providers.

The price of broadband service has come down drastically after amendment of Broadband Policy. BSNL & MTNL are providing broadband Internet System at monthly rates of Rs. 250 & Rs. 199 respectively. The number of Braodband and Internet subscribers have increased to 8.8 lakhs (as on 31<sup>st</sup> December, 2005)

#### **1.1.4.3 VSAT Services**

The new telecom policy 1999 envisages grant of license on non-exclusive basis of Very Small Aperture Terminal (VSAT) service providers for a period of 20 years

extendable one time by 10 years. Licenses on non-exclusive basis are awarded for VSAT service using INSAT satellite system within the territorial boundaries of India.

Under Closed User Group (CUG) VSAT service, the licensees provide Data Connectivity within CUG between various sites scattered throughout India using VSATs and Central hub. There are two categories of CUG VSAT licenses:-

- (i) Captive CUG VSAT license wherein the licensee company can set up VSAT network only for the internal use of the licensee company.
  - (ii) Commercial CUG VSAT license wherein the licensee company can provide CUG VSAT service to number of CGUs on commercial basis.
- ❖ As on 31.09.2005 there are 10 licensees for commercial CUG VSAT services and the number of VSAT terminals under this service are around 42884.
  - ❖ As on 31.09.2005, there are 29 Captive CUG VSAT networks and the number of VSAT terminals under this service is 9480.
  - ❖ The rate of License fee/revenue share was 10% of the Adjusted Gross Revenue from the date of migration to revenue Share regime and up to 31/12/2005 and has been revised as 6% of the AGR w.e.f 01.01.2006.

The status of various services is as follows:

#### **1.1.5 Cellular Service:**

There were 78 CMTS licences owned by 22 companies for 23 Service Areas with a maximum of 4 licences in a Service Area. Out of 78 licences 24 have been approved for migration to Unified Access Service Licence ( UASL). The total number of cellular customers (GSM) as on 31-01-2006 was 6.20 crores.

#### **1.1.6 Unified Access Services**

Government decided to amend NTP-1999 to provide for Unified Access Services Licence regime. This provides for provision of wire-line, fixed and limited mobile wireless and full mobile service under once licence on payment of prescribed entry fee. There are 75 Unified Access Service Licencees in different service areas.

#### **1.1.7 National Long Distance Service**

No new licence was granted for NLD service . The rate of License fee/Revenue share was 15% of the Adjusted Gross Revenue from the date of migration to Revenue Share regime and up to 31.12.2005 and has been revised as 6% of the AGR w.e.f 01.01.2006.

#### **1.1.8 International Long Distance Service**

No new licence was granted for ILD service in 2005-06. The rate of License fee/Revenue share was 15% of the Adjusted Gross Revenue from the date of License and up to 31.12.2005 and has been revised as 6% of the AGR w.e.f. 01.01.2006.

**1.1.9 The Department of Telecommunications participated in the various national & international exhibitions, conferences, seminars & trade fairs during the period from April 2005 – Feb. 2006 as detailed below :**

**National Events**

- (a) Seminar on 3<sup>rd</sup> May 2005 at New Delhi to share the experience between Deptt of Telecommunication & BT (British Telecom).
- (b) 25<sup>th</sup> Indian International Trade Fair 2005 from 14<sup>th</sup> – 27<sup>th</sup> November 2005 at Pragati Maidan, New Delhi.
- (c) Republic Day Parade 2006 from 20-22 February, 2006 presenting a Tableaux depicting the theme “ Broad Band”.
- (d) Global Comm. India 2006 at Pragati Maidan New Delhi.
- (e) Convergence India 2006 from 21-23 March 2006 at Pragati Maidan New Delhi  
(Proposed)

**1.1.10 INTERNATIONAL EVENTS:**

Visit of Indian Delegation to participate in Supercom 2005 held from 7-9 June 2005 at Chicago, USA.

**1.1.11 INTERNATIONAL CO-OPERATION AND OTHER MEETINGS:**

I. Attended the following inter-ministerial meetings

S.No.	Date & Venue	Meeting Particulars
1.	7 <sup>th</sup> April, 05 Sanchar Bhawan	Review meeting of the Afghanistan telecommunication restoration project
2.	15 <sup>th</sup> April, 05 Udyog Bhawan	Preparatory meeting for the forthcoming 9 <sup>th</sup> India-Australia JMC
3.	26 <sup>th</sup> May 05 Udyog Bhawan	Meeting in connection with the 2 <sup>nd</sup> India Myanmar JTC meeting
4.	31 <sup>st</sup> May’ 05 Udyog Bhawan	To discuss the draft action plan on India-EU strategic partnership
5.	6 <sup>th</sup> June Udyog Bhawan	Follow-up of the India-EU Strategic Partnership Initiatives
6.	8 <sup>th</sup> July 2005 South Block MEA	Preparatory meeting for the next JCM with Republic of Korea
7.	27 <sup>th</sup> July 2005 MEA	Preparatory meeting for the 2 <sup>nd</sup> Foreign office consultation between India and Vietnam
8	1 <sup>st</sup> August’ 05	India- RoK Joint Commission Meeting

9.	29th August, 05	Preparatory meeting in connection with 8 <sup>th</sup> Session of Indo-Croatian Joint Committee
10.	22 <sup>nd</sup> Sept. 05 Electronic Niketan DIT	Preparatory meeting for the forthcoming visit of Sweden Minister of Communication and Regional Policy
11.	Sept. 05	Participated in the Joint Commission Meeting between India and Caricom a group of 15 Caribbean countries in MEA
12.	3 <sup>rd</sup> October 05 MEA	Meeting for the next round of Foreign Office Consultations between India & Myanmar
13.	14 <sup>th</sup> October 05 Udyog Bhawan	India –EU Joint Commission Meeting
14	14 <sup>th</sup> October 05	Preparatory meeting Indo-Pakistan Joint Commission Meeting
15.	28 <sup>th</sup> November 05 MEA	Meeting in connection with proposed 8 <sup>th</sup> BIMESTEC Foreign Ministers meeting and 10 <sup>th</sup> Senior official meeting
16.	14-15 <sup>th</sup> December, 05	16 <sup>th</sup> Indo-Bhutan Telecommunication Operation Coordination Meeting
17.	22 <sup>nd</sup> December	Preparatory meeting in connection with the State visit of H.M. the King of Saudi Arabia (KSA)

#### **1.1.12 VISIT OF MINISTERS AND OTHER DIGNITARIES OF FOREIGN COUNTRIES IN INDIA.**

1. Mr. Yoshtoshi Nishimura, member House of Representatives, Japan called on Hon'ble MOS(C&IT) in his chamber in Sanchar Bhawan on 2<sup>nd</sup> May 2005. They exchanged views on the telecom scenario and policy initiatives being undertaken
2. Dr. Juan Schiaretti, Vice Governor of the Province of Cordaba, Argentina called on Hon'ble MOS(C&IT) in his chamber in Sanchar Bhawan on 2<sup>nd</sup> May, 2005. They exchanged views on the telecom scenario and policy initiatives being undertaken
3. A business delegation from Italy met Hon. MOSC&IT in connection with the invitation to participate in SMAU- Exhibition of ICT& Consumer Electronics to be held at Milano during October 2005
4. Mr. Igor Zabolotny, Dy Director General, Russian Satellite Communication Company, Govt. of Russia met Hon'ble MOSC&IT on 21<sup>st</sup> July 2005 in Dak Bhawan. They discussed the bilateral cooperation activities in the field of Satellite Communication
5. Mr. Naohiro Ishida Director General of International Affairs Department Ministry of Internal Affairs and Communications (MIC) called on AS(T) in Sanchar Bhawan on 8.8.2005 to discuss for the preparations of visit of H.E. Mr. Taro also Minister of Internal Affairs and communications (MIC) to India and ICT Forum to be held in New Delhi on 24<sup>th</sup> August, 2005.

6. Mr. Radha Krishna Roy Padayachie, Dy Minister of Communciations of South Africa called on Hon'ble MOS(C&IT) in his office at Dak Bhawan on 14<sup>th</sup> November' 05. Both the dignitaries exchanged the notes on Telecom scenario of their respective countries and highlighted the common issues between the two countries related to rural communication and spectrum management etc. South Africa side expressed its desire to enhance bilateral activities in the field of Telecom between two countries.

### **1.1.13 VISIT OF DOT DELEGATION TO OTHER COUNTRIES**

Hon'ble MOC&IT visited Switzerland for participating in the first gathering of the Young Global Leaders where he was the recipient of the Young Global Leader award. During this tour the Indian delegation under the leadership of the Hon'ble MOC &IT also visited Sweden and Finland for attending bilateral meetings with their counterparts and prominent industry segments from 26<sup>th</sup> June to 1<sup>st</sup> July, 2005

Hon'ble MOC&IT visited France, USA and UK from 16<sup>th</sup>-24<sup>th</sup> Sept. 05 for interaction with Industry including Microsoft, Alcatel, Organge & Qualcom etc.

Hon.MOC&IT alongwith Secretary(T), Additional Secretary(T) visited Tunis from 13-18<sup>th</sup> November 05 for participating in the WSIS Phase II Summit. DIT and DOT jointly organized the Indian pavilion in the exhibition on ICT. PSUs of the ministry and other key players in ICT industry also participated actively in the India pavilion.

Hon'ble MOC&IT alongwith Additional Secretary (T) participated in the 3 GGSM Forum in Barcelona from 13-15 February 2006.

Training programme on “Regulatory Master Class” and “Inter-connection Master Class” from 18-22<sup>nd</sup> April 2005 and 4-8 April 2005 respectivley to Bath, UK

ITU Training Course on “ Standardization Community Management at Geneva, Switzerland from 11-15<sup>th</sup> April, 2005.

Working Group on Internet Governance (WGIG) from 18-20 April 2005 at Geneva.

Training Coruse on”Broadband IP Network and its applications at STTC, Shanghai, PR of China from 15-28 May, 2005

Training Course on Metro optical Network Planning suitable for service developing at WRI, China

ITU/TEMIC Training Course on Telecom Senior Management from 23<sup>rd</sup> May to 3<sup>rd</sup> June 2005 at Montreal, Canada

UNESCO Conference between two phases of the World Summit on the Information Society from 17<sup>th</sup> –20<sup>th</sup> May, 2005 in St. Petersburg, Russia

Participating in the Tokyo Ubiquitous Network Conference in Japan from 16-17<sup>th</sup> May, 2005

ITU Study Group 15<sup>th</sup> Meeting during 16-27 May 2005 at Geneva, Switzerland

Training Course on Advanced IP Technology at Beijing, PR of China from 22<sup>nd</sup> May-4<sup>th</sup> June, 2005

Participation in the Course on Network Security at Xian, China from 29 May –12<sup>th</sup> June, 2005.

Preparatory meeting of the World Telecommunication Development Conference (WTDC-06) at Hanoi Vietnam from 8-10<sup>th</sup> June 2005

Participated in the Supercom 2005 Chicago, USA from 6-9<sup>th</sup> June, 2005

Attended Asia Policy Froum hosted by the Asia development Institute from 25-30<sup>th</sup> June 2005 at Seoul

Participated in the Asia Pacific Forum on Telecommunication Policy and Regulation and APT Preparatory meetings for Plenipotentiary Conference 2006 from 15-18<sup>th</sup> June, 2005 at Singapore

Attended the lcoteq Suppliers Day meet at Helsinki, Finland from 15-16<sup>th</sup> June 2005

Attended Seminar on leveraging Private Investment for Rural ICT Development at Thailand from 5-7<sup>th</sup> July, 2005

Participated in the Training Programme for Regulatory and privatization issues in Telecommunications from 21-29 July 2005 at Washington, DC USA

Participated in the Training Course on Wireless Communications technology from 20-29<sup>th</sup> July, 2005 Tokyo Japan on APT Fellowship

Attended the Symposium on Network Security and SPAM at Indonesia from 22-24 August, 2005

Attended the seminar on Universal Service and Protection of Consumer Rights from 24-25 August, 2005 at China

Study visit and System Integration Course from 24-30 August 2005 at Seoul, Korea

Course on IP Network Technologies from 29<sup>th</sup> August-9<sup>th</sup> September 2005 at Japan

Training Course on IP Network Basic Technologies, NTT –Neomeit Kyushu Corporation, at Kitakyushu City, Japan 29<sup>th</sup> August-9<sup>th</sup> Sept



Meeting of the technical experts of Russia and India on issues concerning operation of direct secure telephone communication link between Moscow and New Delhi was held from 19<sup>th</sup>-21<sup>st</sup> July 2005 in Moscow.

A meeting of the Indo-Russian Joint Working Group on Technology held from 12-14<sup>th</sup> September'05 in Moscow. The India delegation was led by Dr. Vijayadita, Director General, National Informatics Center(NIC)

Attended Second Coordination meeting within the Framework of MoU between India, Bhutan, ITU and UPU at Thimpu, Bhutan from 1<sup>st</sup> to 3<sup>rd</sup> September, 2005

Attended the ITU-T Study Group 15(Optical and Broadband Access Technology) from 13-16<sup>th</sup> September, 05 at Ottawa, Canada

A delegation led by Secretary(T) attended the Prepcom III of World Summit on Information Society (WSIS) from 19September to 1<sup>st</sup> October, 05 at Geneva

Attended the training course on Broadband Technology Awareness from 26<sup>th</sup>-30<sup>th</sup> September 05 at Kuala Lumpur, Malaysia

Training course on recent trends in disaster reduction network at Tokyo, Japan from 26-29<sup>th</sup> September, 05

Attended bilateral negotiations meeting on the WTO at Geneva from 26-30 September 2005 as a member of delegation led by ministry of Commerce

Participated 4<sup>th</sup> meeting of the Indo-EU Joint Working Group on Information Society held on October 6-7, 2005 in Brussels, Belgium

Attended the training course on Planning and Management of Next Generation Mobile Telecommunications from 18-26<sup>th</sup> October, 2005 at YRP Yokosuku Kanagawa, Japan

A Plenary meeting of the India-Pakistan Joint Commission held in Pakistan as a part of delegation led by Hon'ble EAM from 3-5 October'05

Attended the meeting of Telecommunication Standardization Advisory Group (TSAG) at Geneva from 7-11 November, 05

Participated in the Training Course on Regulation of Telecommunications, Melbourne, Australia from 14-25<sup>th</sup> November, 05

Attended the training course of Space Communication MIC, Tokyo Japan from 25<sup>th</sup> November to 1<sup>st</sup> December, 05

A 4 member delegation led by Member(F) participated in the 10<sup>th</sup> Session of the APT General Assembly and Management Committee meeting held at Islamabad from 30<sup>th</sup> November to 7<sup>th</sup> Dec. 05

#### **1.1.14 INTERNATIONAL EVENTS HOSTED**

Hosted the Asia Pacific Telecommunication and ICT Development Forum (ADF) from 18-21 July, 2005 at Goa (4 days). 120 delegates participated.

Hosted the International Conference of "Rural Connectivity" in association with Commonwealth Technical Organisation at Ernakulam, Kerala from 30<sup>th</sup> to 2<sup>nd</sup> February 2006.

### **1.2 Wireless Planning and Coordination Wing**

#### **1.2.1 FREQUENCY ASSIGNMENT FOR TERRESTRIAL & SATELLITE NETWORKS.**

**1.2.1.1 TERRESTRIAL NETWORKS:** Assignments of frequencies for terrestrial networks of government and private sector were made for variety of applications, namely, Global System for Mobile(GSM) based cellular networks, Public Monitor Radio Transmission System(PMRTS), Code Division Multiple Access(CDMA) & Cor-DECT based networks, point-to-point and point-to-multipoint microwave networks, etc. after necessary technical examinations, analysis and coordination with other wireless networks, as appropriate for establishing electromagnetic compatibility so as to ensure interference-free operation of all such networks. Assignment of frequencies in 890-915 MHz/935-960 MHz and 1710-1885 MHz/1805-1880 MHz band have been made to various UASL and others cellular operators. Assignment were also done in the band 869-889 MHz paired with 824-844 MHz for CDMA based networks.

**1.2.1.2 SATELLITE BASED SERVICES:** Frequency assignments for public/ captive satellite communication networks including those for Very Small Aperture Terminal (V-SAT) networks and for other satellite applications were made for networks of various service providers/ users/departments including several broadcasters for operation of TV up linking earth stations.

**1.2.1.3 SATELLITE SYSTEM COORDINATION :** International coordination of satellite systems is required to be undertaken as per the provisions of the International Radio Regulations (RR) of the International Telecommunications Union (ITU). Coordination of frequency assignments for the individual satellite networks is necessary with satellite networks of other administrations for mutual coexistence and interference free operations of these networks. The satellite coordination is a continuous process. Due to the increasing number of satellites in the Geo-Stationary orbit of our interest, the activity for arriving at successful bilateral coordination agreements of satellite networks is becoming extremely complex as well as important. Accordingly, the national and international activities for coordination and protection of Indian satellite systems vis-à-vis existing/planned systems were continued during this period.

#### **1.2.1.4 INSAT Satellite Networks:**

##### **Satellite coordination with other Administrations**

###### 1.2.1.4.1 Coordination Agreement :

Detailed technical analysis for ensuring electro magnetic compatibility was undertaken in respect of proposals received from various Administrations as per following details :

- Coordination agreement between IRIS series of satellite network of USA at different locations with Indian satellite networks at various orbital locations and frequency bands.
- Coordination agreement between DFSII-1 and DFSII-2 satellite networks of Germany with Indian satellite networks at various orbital locations and frequency bands.
- Coordination agreement for Telemetry and Telecommand carriers ( TT&C) with Administration of China

###### 1.2.1.4.2 Coordination Meetings:

Bilateral inter-system satellite coordination meetings with administration of UK and Malaysia were held and large number of Indian Satellite networks were coordinated with these Administrations.

#### **1.2.1.5 Coordination with ITU**

Notification for frequency assignments to INSAT EK and INSAT-EK-R series if Indian Satellite network at 48,55,74,83,93.5E location have been submitted to ITU for publication in relevant section of International Frequency Information Circular ( BRIFIC).

Detailed coordination request in respect of INSAT-KU-10 series at 48, 74,83,93.5E have been sent to ITU for publication in relevant section.

Additional information i.r.o INSAT-NAV 82E, 83E, 34E, 132E and INSAT-NAV-GS was submitted to ITU for publication in the Special Sections of the BRIFIC.

Advance Publication Information ( API) i.r.o INSAT-KA series at 48E, 55E,74E, 83E,93.5E and 111.5E were submitted to ITU for publication in the Special Sections of the BRIFIC

Additional Information i.r.o INSAT-EK-55 (55E) and INSAT-KU-10 at 48,74,83,93.5 & 111.5 E were sent to ITU

The coordination of INSAT and ASSL satellite networks of India are likely to be pursued with affected satellite networks of other administrations. Based on the correspondence from the administrations, bilateral satellite coordination meetings are likely to be convened with various administrations. The coordination agreement through

correspondence in the form of proposals received from various administration are likely to be examined and would be conveyed to the administration appropriately.

#### **1.2.1.6 Examination of International Information Circular of Radiocommunication Bureau (BRIFIC)-Space Services :**

With a view to protecting our frequency assignments and satellite orbital position for interference free operation of Indian satellite networks, detailed examination of Special Sections of ITU-R's International Frequency Information Circulars (IFIC) for space services have been undertaken on a continuous basis. IFIC had been examined and objections were sent to Administrations of Thailand, UAE, Korea, Turkey, Malaysia, China, France, Luxemburg, Saudi Arabia, Nigeria, Sweden, Kazakhstan, Russia and USA, for detailed coordination with a view to protecting Indian Satellite and terrestrial networks.

1. The following Indian satellite networks were published in BRIFIC :
2. Due Diligence information i.r.o INSAT-AF-48 and INSAT-AF-55 (55E)
3. Advance Publication Information i.r.o INSAT-KA(82), IRS-P5, INSAT-HAMSAT , INSAT NAV (34E), INSAT-NAV (132E) and INSAT-NAV (GS)
4. Detailed coordination request i.r.o INSAT MET (82E), INSAT MET (92E)
5. Notification i.r.o INSAT-2 (111.5E), INSAT-2A (83E), INSAT-2B (93.5) and INSAT-2C (74E)
6. 12 numbers of BRIFICs are likely to be examined during the period

#### **1.2.1.7 Frequency assignment to satellite based services**

Frequency assignments for public/captive satellite communication network including that of Very Small aperture Terminal (VSAT) networks and for other satellite applications have been made to various service providers/users/departments. Frequency assignments have also been made to several broadcaster/teleport owners for operation of TV up linking earth stations.

#### **1.2.1.8 Review of National Frequency Allocation Plan (NFAP) – 2002.**

NFAP-2002 has been revised and the Draft for revised National Frequency Allocation Plan – 2005 (NFA-2005) has been evolved within the overall framework of Radio Regulations of International Telecommunication Union (ITU), taking into account spectrum requirement of the Government as well as private sectors. This review exercise was undertaken with wide participation of the SACFA members, Government as well as private sectors and other interested entities in a very transparent manner. The Draft NFAP – 2005 has been placed on WPC website and comments received on same are under examination.

## **1.2.2. Automation of Spectrum Management & Augmentation Monitoring System:**

1.2.2.1 The project 'Design, Supply, Installation & Commissioning of "National Radio Spectrum Management & Monitoring System (NRSMMMS)" is being implemented with assistance of the World Bank. Under the project, spectrum management and monitoring functions will be automated with a view to making these activities effective and efficient.

1.2.2.2 During current first two quarter of current financial year, the customisation works related to ASMS at Sanchar Bhawan have been almost completed and system is in operational. SACFA applications are now being received through web server and are being examined in ASMS server. Out of 14 tower sites, tower erection work for installation of monitoring antennae has been completed at 12 sites. Acceptance testing for V/UHF MMS vehicles and fixed sites are under progress.

**1.2.3** The achievement with respect to the "Outcome Budget 2005-06" is indicated at Annexure-"J"

### **1.2.4 Projections for the period 1.10.2005 -31.03.2006 (Anticipated)**

(i) National preparations and participation in the meetings of various ITU-R study Groups, ITU-R working Parties and ITU-R Task Groups would continue. Participation in the meetings of ITU-R Special Committee on Regulatory and procedural matters is also anticipated.

(ii) Besides above, participation in the Regional radiocommunication Seminar, 10<sup>th</sup> Session of the General Assembly and 29<sup>th</sup> Session of the Management committee of APT are also envisaged.

(iii) The Fixed sites and V/UHF Mobile Monitoring System are scheduled to be completed by 31<sup>st</sup> December 2005.

#### **1.2.4.1 Projection for 2006-07:**

(i) The automated/computerised system for spectrum management is expected to be put to intensive usage.

(ii) Completion of SHF Mobile Monitoring System and SHF fixed site under the project and operational acceptance of NRSMMMS, is expected during 2006-2007.

(iii) National preparations, participation and follow-up activities for following international conferences/meetings are envisaged :

- Plenipotentiary Conference-06
- Conference Preparatory Meeting (CPM) for WRC-07
- ITU-R Study Group 1 & its Working Parties meeting (Spectrum Management)
- ITU-R Study Group 4 & its Working Parties meeting (Fixed Satellite Service)

- ITU – R Study Group 7 (Science Services)
- ITU-R Working party 8 F meeting ( Mobile, Radio determination, amateur and related Satellite Service)
- ITU-R Study Group 9 & its working parties meeting (Fixed Service)
- Radiocommunication Advisory Group Meeting
- 2006 Session of ITU Council
- Participation in Asia-Pacific Telecommunity Seminar(s) / Training Course (s)
- Coordination of work related to National Preparatory Committee on World Radiocommunication Conference (WRC-07)
- Participation in APT Conference Preparatory Group meeting for ITU-R's WRC-2007

### 1.3 Monitoring Organisation

1.3.1 Break up of Financial outlay (Plan & Non-Plan) in respect of individual Programs/Activities of the organisation are indicated below:

(Rs. in Lakhs)

S.No. Programmer	BE 2005-06			RE 2005-06		
	Non-Plan	Plan	Total	Non-Plan	Plan	Total
<b>Continuing Schemes</b>						
1. Augmentation of of DF Systems Systems at Delhi, Chennai, & Nagpur	--	10	10	...	...	...
2. Science & Technology	--	35	35	...	1	1
3. Strengthening of VHF/UHF Spectrum Analysis capabilities	--	300	300	...	1	1
4. Regional Maintenance Centre	--	20	200	...	1	1
5. Up gradation of Training Centre	--	5	5	...	3	3
6. Modernization of Wireless Monitoring H.Q. at Pushpa Bhavan	--	50	50	...	...	...
7. Management Information System	--	50	50	...	1	1
<b>Total</b>	101600	650*	102250	...	7	7
Civil works	--	1227	1227	...	1005	1005
<b>Grand Total</b>	<b>101600</b>	<b>1887</b>	<b>103477</b>	<b>...</b>	<b>1012</b>	<b>1012</b>

**1.3.2** The achievement with respect to the "Outcome Budget 2005-06" is indicated at Annexure-"K"

## ANNEXURE – “A”

**BHARAT SANCHAR NIGAM LIMITED**

(Break up of Working Expenses of BSNL)

Ref. Para No.2.1.9 /page No.27

(Rs. in Crores)

Sl. No.	Particulars	Revised Estimates 2004-05	Revised Estimates 2005-06	Budget Estimates 2006-07
1	<b>Revenue Receipt</b>	<b>34094</b>	<b>36663</b>	<b>38602</b>
2	Staff Expenses (including bonus)	7201	7099	7459
3	Operative/Admn. Expenses	5726	5548	6175
4	Maintenance	2309	2500	2600
5	Space Segment Chares	445	0	0
6	Interest Payments	71	1119	1245
7	Depreciation	10128	10377	11055
8	License Fee & Spectrum Charges	3514	2980	3146
9	Provision for Income Tax	679	587	580
10	Dividend	282	975	975
11	Other Adjustments and provisions	6443	2617	3621
12	Gross Working Expenses ( S.No 2 to 11)	36798	33802	36856
13	Less: Recoveries & Extraordinary items	3971	1074	475
14	<b>Net Working Expenses</b>	<b>32827</b>	<b>32728</b>	<b>36381</b>
15	Adjusted Internal Resources (S.No 1-14+7)	11395	14312	13276
16	Net USO Fund Receipts *	1500	2500	2500
17	Compensation for Non-viable Services	0	0	0
18	Bonds to be raised (EBR)	255	1775	6155
19	<b>Total of IEBR ** (S.No 15+17+18)</b>	<b>11650</b>	<b>16087</b>	<b>19431</b>
20	Approved Plan Outlay	11650	16087	19431

\* Included in Revenue Receipts



## BHARAT SANCHAR NIGAM LIMITED

## PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2005

Ref. Para No.2.1.9 /page No.27

	Year ended 31st March 2005 * (Rs.000's)	Year ended 31st March 2004 (Rs.000's)
<b>INCOME</b>		
Telephones	334500400	313993400
Other income	26400500	25192500
<b>Total Income</b>	<b>360900900</b>	<b>339185900</b>
<b>EXPENDITURE</b>		
Employees Remuneration and Benefits	84184500	63766300
License Fee and Spectrum Charges	33771700	
License Fee and Spectrum Charges	33771700	37130800
Administrative, operating other expenses	79517600	71118300
Financial expenses	292900	882400
Depreciation	96248600	98737400
<b>Total (c )</b>	<b>294015300</b>	<b>271635200</b>
Profit before Prior period adjustments and Extraordinary items	66885600	67550700
Prior Period adjustments	-5343800	-589000
Profit before Extraordinary items	61541800	66961700
Extraordinary items	17659000	23000000
Profit before taxation	79200800	89961700
Provision for Tax		
- Current Tax	7881600	20452000
- Deferred Tax	-17593300	9744400
Wealth tax	99200	0
- Excess Corporate Tax provision written back	-13019600	0
<b>Profit After Taxation</b>	<b>101832900</b>	<b>59765300</b>
Appropriation		
Contingency Fund	0	20000000
Bonds Redemption Reserve	0	0
Dividend	9750000	2812500
Tax on Dividend	1628800	367600
Surplus carried to Balance Sheet	68087500	36585200
Interim Dividend	2000000	0
Transferred to General Reserve	20366600	0
	<b>101832900</b>	<b>59765300</b>
Earnings per share Basic/Diluted earnings per equity share (Rupees)	<b>18.83</b>	<b>11.95</b>

\* Provisional

## ANNEXURE – “C”

## BHARAT SANCHAR NIGAM LIMITED

## BALANCE SHEET AS AT THE END OF 31ST MARCH 2005

Ref. Para No.2.1.9 /page No.27

PARTICULARS	2004-05 * (Rs.000's)	2003-04 (Rs.000's)
<b>SOURCES OF FUND</b>		
<b>Shareholder's fund</b>		
Capital	125000000	125000000
Reserve & Surplus	602791100	505183300
Deferred Govt. Grants	7200000	7200000
<b>Loan Funds</b>		
Secured loan	0	0
Unsecured Loans	75008900	75376800
Deffered Tax Liability-Net	30440200	48033500
<b>TOTAL</b>	<b>840440200</b>	<b>760793600</b>
<b>APPLICATION OF FUNDS</b>		
Fixed Assets		
Gross Block	10141021600	952879000
Less : Depreciation	423330900	324262100
Net Block	617690700	628616900
Work-in-Progress	45722600	58081500
Decommissioned Assets	804500	307100
	<b>664217800</b>	<b>687005500</b>
Investment	2000000	2000000
Current Assets and Loans and Advances		
Accrued interest		507100
Inventories	23956400	22208200
Sundry Debtors	66358700	63608600
Cash and Bank Balances	219311300	115513300
Loans & Advances	75149800	61640800
	<b>384776200</b>	<b>263478000</b>
Less: Current Liabilities and provisions		
Liabilities	145386200	150942700
Provisions	74617800	49777200
<b>Total</b>	<b>220004000</b>	<b>200719900</b>
Net Current Assets	<b>164772200</b>	<b>62758100</b>
Intra/Inter circle Remittance	9450200	9030000
<b>Total</b>	<b>840440200</b>	<b>760793600</b>

\* Provisional

**ANNEXURE - "D"**  
**MAHANAGAR TELEPHONE NIGAM LIMITED**  
**PROFIT AND LOSS ACCOUNT**

Ref. Para No.2.2.1.6/Page No.28

(Rs in crs)

<b>Particulars</b>	<b>Actuals 2004-05</b>	<b>BE 2005-06</b>	<b>RE 2005-06</b>	<b>BE 2006-07</b>	<b>Actuals upto December 05 (Unaudited)</b>
<b>Total Receipt</b>					
Income from services	5592.38	5901.00	5278.78	5582.52	3814.36
other income	491.72	150.00	305.00	230.00	387.01
<b>Total.</b>	<b>6084.10</b>	<b>6051.00</b>	<b>5583.78</b>	<b>5812.52</b>	<b>4201.37</b>
<b>Total expenditure</b>					
Employees Remuneration & Benefits	1835.89	1916.00	1924.24	2040.35	1418.75
Charges for use of National Network	927.85	765.00	971.94	1001.12	668.55
Licence fees	497.16	490.00	442.68	466.00	351.27
Administrative, Operating & Other expenses	983.71	1225.00	1064.63	1183.78	688.29
Depriciation	588.01	750.00	582.00	615.00	471.96
Interest	35.81	32.00	34.00	37.00	22.00
<b>Total</b>	<b>4868.43</b>	<b>5178.00</b>	<b>5019.49</b>	<b>5343.25</b>	<b>3620.82</b>
<b>Profit before tax</b>	1215.67	873.00	564.29	469.27	580.55
Provision for taxation	267.24	231.66	124.14	101.04	132.71
Profit after Tax	948.43	641.34	440.15	368.23	447.84
Prior period adjustment	9.45	15.00	15.00	10.00	0.00
Profit for the year	938.98	626.34	425.15	358.23	447.84
<b>Appropriation</b>					
Dividend	283.50	283.50	283.50	283.50	-
Tax on Dividend	39.28	37.05	39.28	39.28	-
Transfer to Contingency Reserve	71.03	0.00	0.00	0.00	-
General Reserve	545.17	305.79	102.37	35.45	-
<b>Total</b>	<b>938.98</b>	<b>626.34</b>	<b>425.15</b>	<b>358.23</b>	<b>-</b>

## ANNEXURE – “E”

## MAHANAGAR TELEPHONE NIGAM LIMITED

## BALANCE SHEET

Ref. Para No.2.2.1.6/Page No.28

(Rs. in Crores)

Particulars	Actuals 2004-05	BE 2005-06	RE 2005-06	BE 2006-07	As At December 05 (Unaudited)
<b>SOURCES OF FUNDS</b>					
Shareholders Fund	630.00	630.00	630.00	630.00	630.00
Reserve & Surplus	10313.83	10294.61	10416.20	10451.65	10462.78
<b>Loan Funds</b>					
Secured Loans	0.00	0.00	0.00	0.00	0.00
Unsecured Loans	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>10943.83</b>	<b>10924.61</b>	<b>11046.20</b>	<b>11081.65</b>	<b>11092.78</b>
<b>APPLICATION OF FUNDS</b>					
Fixed Assets					
Gross Block	14252.25	17164.45	15422.25	17628.25	14548.49
Less: Depreciation	(7783.62)	(8717.65)	(8365.62)	(8980.62)	(8198.80)
Net Block	6468.63	8446.80	7056.63	8647.63	6349.69
Investment	397.47	350.00	310.00	60.00	417.05
Capital WIP	627.06	622.28	676.06	768.06	614.56
Net Current Assets	3450.68	1505.53	3003.51	1605.96	3711.48
<b>Total</b>	<b>10943.83</b>	<b>10924.61</b>	<b>11046.20</b>	<b>11081.65</b>	<b>11092.78</b>

**Annexure – “F”**

**ITI LIMITED**  
**PROFIT AND LOSS ACCOUNT - 2005-06 (BE & RE) AND BE 2006-07:**

Ref. Para No.2.3.4/Page No.29

[RS IN CRORES]

PARTICULARS	2004-2005	PROJECTIONS		
	Audited	B.E. 2005-06	R.E. 2005-06	B.E. 2006-07
<b>INCOME</b>				
Sales & Services [incl. Excise Duty]	1389	3057	3938	4261
Others	504	125	105	129
	1893	3182	4043	4390
<b>EXPENDITURE</b>				
Direct Materials	1147	2070	2875	3148
Employees Cost	337	250	307	258
Depreciation	32	52	47	54
Financing Exp.	207	182	223	248
Mfg,Admn and Selling Exp. [incl. Excise Duty]	445	512	519	572
	2168	3066	3971	4280
Less:				
Transfer to Capital Account	5	0	0	0
Accretion/(Decretion) to Work-in-Process, Stock-in-Trade and Mafd. Components	(26)	0	0	0
Miscellaneous Expenditure not written off	0	0	0	0
	(21)	0	0	0
Cost of Sales for the year	2189	3066	3971	4280
Profit before Tax for the year	(296)	116	72	110
Prior Period adjustments (net)	(14)	0	0	0
Profit before Tax	(310)	116	72	110
Less: Provision for Tax(Deferred Tax)	0	0	0	0
Profit after Tax	(310)	116	72	110

**ANNEXURE – “G”**

**ITI LIMITED  
BALANCE SHEET - 2005-06 (BE & RE) AND BE 2006-07:**

Ref. Para No.2.3.4/Page No.29

[RS IN CRORES]

PARTICULARS	PROJECTIONS			
	2004-2005	B.E.	R.E.	B.E.
	Audited	2005-06	2005-06	2006-07
<b>SOURCES OF FUNDS:</b>				
<b>Shareholders' Funds:</b>				
Share Capital	588	588	588	588
Reserves and Surplus	64	64	64	64
Grant-in-Aid	155	133	60	41
<b>Loan Funds</b>				
Secured Loans	880	1391	1384	1369
Unsecured Loans	750	730	870	970
<b>TOTAL</b>	2437	2906	2966	3032
<b>APPLICATION OF FUNDS:</b>				
<b>Fixed Assets</b>				
Gross Block	932	1073	1026	1131
Less: Depreciation	735	796	782	836
Net Block	197	277	244	295
Capital Work-in-Progress	4	60	30	25
Investments	5	5	5	5
Current Assets, Loans and Advances	2421	3751	3952	4278
Less: Current Liabilities and Provisions	1581	2429	2559	2770
Net Current Assets	840	1322	1393	1508
Miscellaneous Expenditure not written off	33	17	17	0
Profit and Loss Account - Debit	1358	1225	1277	1199
<b>TOTAL</b>	2437	2906	2966	3032

## ITI LIMITED

**Production Performance (Physical) of 2005-2006  
and Target for 2006 - 2007**

Ref. Para No.2.3.4/Page No.29

*(Rs. in Crores)*

Sl. No.	PRODUCTS	ACCTG. UNIT	2005-2006 TARGET	Actual Perf. upto Sept. 2005	2006-2007 TARGET
1	<b>SWITCHING</b>				
1.1	OCB 283 - LOCAL	KL	25	64.00	50
1.2	OCB - TAX/TANDEM	KC	55	123	100
1.3	C-DOT Products	Rs. Cr.	10	17.23	
2	<b>TRANSMISSION PRODUCTS</b>				
2.1	SATCOM	Rs. Cr.	10	3.70	5
2.2	OPTIC FIBRE PDH +SDH	Rs. Cr.	62	25.89	
2.3	DWDM	Rs. Cr.	66	32.17	30
3	<b>TERMINAL EQUIPMENT</b>				
3.1	TELEPHONES	K NOS	17	138.84	20
3.2	SPV/OTHER TELEPHONES	Rs. Cr.	6	-	
4	<b>NEW PRODUCTS</b>				
4.1	WLL-CDMA INFRA	KL	336	450	220
4.2	GSM-INFRA	KL	1500	-	2100
4.3	FWT/CDMA HAND SETS	K Nos	332	150.65	370
4.4	DLC-SDH/WiMax/WiFi	Rs. Cr.	60	50	115
4.5	SIM CARDS+VRLA BATTERY	Rs. Cr.	125	16.10	65
4.6	MLLN/MPLS/Net WORK for IT	Rs. Cr.	133	2.55	100
4.7	Misc.Products(NGN/IPTAX/SSTP)	Rs. Cr.	203	-	100
5	<b>SOLUTION BUSINESS (incl ADSL)</b>	Rs. Cr.	295	32.01	345
6	<b>TURN-KEY PROJECTS</b>	Rs. Cr.	480	105.82	400
	<b>TOTAL (without ED)</b>	Rs. Cr.	3715	433.95	4020

## TELECOMMUNICATION ENGINEERING CENTRE (TEC)

Ref. Para No.1.2.1/Page No.21

Sl. No.	Name of Scheme/ Programme	Objective /Outcome	Outlay 2005-06	RE 2005-06	Expenditure 2005-06	Quantifiable /		Process / Timelines	Remarks / Risk Factor	
						Deliverables	Achieved			
1	Telecom Standardization and preparation of Generic Requirements. Interface requirements, Service Requirements, New Technology study, trials and induction	1) Technical support to DoT and other operators	1.13	1.0391	Qtr.1 – 0 Qtr.2 – 0 Qtr.3 – 0 Qtr.4 - 0.1241 (expected)	<b>1) New GRs/ IRs – 42</b>  Qtr.1 – 11 Qtr.2 - 9 Qtr.3 – 10 Qtr.4 – 12	Qtr.1 – 18 Qtr.2 - 10 Qtr.3 – 05 Qtr.4 – --- <b>Total - 33</b>	1) Upgradation of TEC Intranet	i) Preparation of Specification ii) Revision of Budget iii) Floating of tender iv) Date of opening of Tender v) Evaluation of tender vi) Installation of equipment	Completed Completed Completed Completed
2	Preparation of Fundamental Telecom Plans (e.g. Numbering Plan)	2) Telecom Standardization, preparation of Generic Requirements (GR) and Interface Requirements (IR) and New Technology Studies	Qtr.3 -0.11 Qtr.4 -1.02			<b>2) Review of GRs/ IRs – 80</b>  Qtr.1 – 16 Qtr.2 - 23 Qtr.3 – 23 Qtr.4 – 18	Qtr.1 – 27 Qtr.2 - 03 Qtr.3 – 06 Qtr.4 – --- <b>Total - 36</b>			Under Process ----
3	Technical support to DoT Technical support to BSNL /MTNL Approving inter-operator Network-Network					<b>3) Test Schedule -122</b>  Qtr.1 – 27 Qtr.2 - 33 Qtr.3 – 33 Qtr.4 – 29	Qtr.1 – 34 Qtr.2 - 05 Qtr.3 – 19 Qtr.4 – --- <b>Total - 58</b>	2) NGN Test Bed	i) Preparation of Specification ii) Floating of tender iii) Opening of Tender iv) Technical Evaluation of tender vi) Installation of equipment	Specification could not be finalized due to non availability of enough project component in the market
4	Interfaces (NNI)									
5	Issue of service test certificates to licensed									
6	Service providers Interface approvals of customer equipment					<b>4) Study Items - 30</b>  Qtr.1 – 3 Qtr.2 - 7 Qtr.3 – 7 Qtr.4 – 13	Qtr.1 – 1 Qtr.2 - 5 Qtr.3 – 6 Qtr.4 – --- <b>Total - 12</b>			
7	Participation in APT, ITU and other standards organizations									



ANNEXURE – “I” (Contd.)

TELECOMMUNICATION ENGINEERING CENTRE (TEC)

Sl. No.	Name of Scheme/ Programme	Objective /Outcome	Outlay 2005-06	RE 2005-06	Expenditure 2005-06	Quantifiable /		Process / Timelines		Remarks / Risk Factor
						Deliverables	Achieved			
						5) Validation - 9		4) Wi Fi Hotspot	i) Preparation of tender document ii) Floating of tender iii) Opening of tender iv) Technical evaluation of tender vi) Procurement of equipment	Completed Completed Completed Under process -----
			1.1317	1.0391	0.1241					

**WIRELESS PLANNING & COORDINATION (WPC)***Ref.Para No.1.2.3/Page No.55*

The project ‘Design, Supply, Installation & Commissioning of “National Radio Spectrum Management & Monitoring System (NRSMMMS)”’ is being implemented with assistance of the World Bank. Under the project, spectrum management and monitoring functions will be automated with a view to making these activities effective and efficient. The estimated outlay of the scheme is Rs.202 crores. The project is planned as part of the Telecom Sector Reform TA Project for World Bank assistance. After international bidding as per World Bank procedure, the contract has been awarded and the effective date of the contract has been established.

Statement showing the Budgetary Provision for BE & RE 2003-04 and BE 2004-05 for various activities/programmes of World Bank Project of WPC Wing, Ministry of Communications & Information Technology.

(Rs. in lakhs)			
Major Head	BE 2005-06	RE 2005-06	BE 2006-07
<b>3275-Other Communication Services</b>			
<b>101-Wireless Planning &amp; Coordination Wing (PLAN)</b>	<b>6271.00</b>	<b>3377.00</b>	<b>3035.00</b>

**Detailed Performance****1. Achievements during 01.04.2005 to 31.12.2005:**

The project ‘Design, Supply, Installation & Commissioning of “National Radio Spectrum Management & Monitoring System (NRSMMMS)”’ is being implemented with assistance of the World Bank. Under the project, spectrum management and monitoring functions will be automated with a view to making these activities effective and efficient.

During current first three quarter of current financial year, the customization works related to ASMS at Sanchar Bhawan have been almost completed and system is in operational. Applications are now being received through web server and are being examined in ASMS server. Out of 14 tower sites, tower erection work for installation of monitoring antennae has been completed at 12 sites. The Acceptance Test for hardware facility for all non-tower sites have been completed. Anomalies reported, are being rectified by the contractors. Acceptance testing for V/UHF MMS vehicles and other fixed sites are under progress.

**2. Anticipated achievements during 01.01.2006 to 30.03.2006:**

All the Fixed sites except WMS, Goa and V/UHF MMS part of the project is likely to be completed by 31<sup>st</sup> March 2006.

**3. Reasons for not achieving target projected in Outcome Budget 2005-06:**

**3.1 Fixed Sites:** The Contractors has not completed installation works on time. Due to this, acceptance testing of fixed sites has also been delayed. Now, Acceptance testing is under progress.

**3.2 V/UHF Mobile Monitoring Vehicle:** Though acceptance testing of V/UHF vehicles is in progress but it has not been completed fully for even one vehicle as one test namely ‘System Sensitivity’ have not been completed. Now, Contractors has made some changes in their design, this test is being carried out.

**3.3 SHF Mobile Monitoring Vehicle and SHF Fixed Monitoring Station at Jalna:** The designs, submitted by the contractors are not meeting the contractual requirements. In order to resolve the issues concerning SHF MMS and Fixed facility, a Technical Committee was constituted with the approval of Chairman (TC) to consider final design proposed by Contractors for SHF Fixed and Mobile Systems. The Technical committee has submitted its Report, the same is under examination.

**4. Projection for the year 2006-2007:**

Completion of all the activities related to WMS, Goa, SHF MMS, SHF fixed site part and spill over of Fixed and V/UHF MMS part of the project from previous year and operational acceptance of NRSMMMS.

**ANNEXURE – “J” (contd.)**

	<b>Actual Performance April-2005 to December-2005</b>	<b>Anticipated January 2006 to March, 2006</b>	<b>Projection 2006-2007</b>
<b>1. Radio Frequency Spectrum Management</b>			
New Radio frequencies Authorized to various users	43569	4700	165100
The frequency assignment Intimated to Radio-communication for Registration	671	650	1050
No. of sites cleared for new Wireless stations	25407	12000	40000
Inter Departmental Meetings	73	25	115
SACFA Meeting	1	1	4
WPCC	...	...	...
<b>2. Issue of Wireless Licences:</b>			
New Wireless Stations Licenced	25407	12000	19600
No. of old stations for which Licences renewed	8595	4010	27530
No. of Import Licences issue	468	305	1060
<b>3. Certificate of Proficiency Examination/Licences</b>			
No. of exams conducted	14	4	18
No. of candidates admitted	3479	1200	4000
No. of licences issued	1132	400	1600
No. of licences renewed	1510	500	2200
No. of New Licences issued (Radio Amateur)	460	200	800
No. of Licences renewed	530	200	600
<b>4. Revenue from licence fee, royalty and examination fee (crores)</b>	Rs.879.78 (Crores)	Rs.350 (crores)	Rs.1326

Ref.Para No.1.3.2/Page No.56

### WIRELESS MONITORING ORGANISATION (WMO)

#### THE FUNCTIONAL PERFORMANCE DATA OF THE MONITORING ORGANISATION

Wireless Monitoring Organisation continued to provide technical and allied data on the basis of Wireless Monitoring observations for effective and efficient Radio Frequency Management and Radio Regulatory aspects. Statistical performance data during the period 1.10.05 to 31.12.05 is as given below:-

S.No.	Particulars	Actual achievements w.e.f. 1.10.05 to 31.12.05
a.	Channel days utilized for Radio Monitoring	2361
b.	Monitoring Assignments Handled	3957
c.	No. of Radio Noise measurements	85252
d.	No. of Wireless Transmission monitored	36423
e.	Infringements communicated to various Users for remedial action	4219
f.	Technical assistance rendered to users	330
g.	No. of Wireless Stations Inspected	3867
h.	No. of officials trained	10
a.	Many important Radio Surveys/Investigation assignments were carried out by way of Mobile Monitoring during the year.	
b.	Microwave Mobile monitoring Terminal at Chennai continued to monitor radio Transmissions in microwave frequency bands to verify emissions. Characteristics and interference potential. The measurements on terrestrial microwave links viz. Los Systems, radars etc. to ensure compatibility are also being carried out regularly. Assistance was also provided to the users by way of conducting noise surveys for wireless/earth stations and site selection.	
c.	A specialized mobile monitoring Terminal having Monitoring capabilities upto 40 Ghz is operational. The primary objective is to monitor unauthorized transmission in the satellite communication bands, as well as from terrestrial stations.	
d.	At a few Monitoring Stations, fixed/mobile direction finding systems are being used for locating the direction/location of authorized/unauthorized transmissions.	

- e. Satellite Monitoring Earth Station at Jalna (Maharashtra) is continuing the monitoring of signals from all satellites located in arc of interest to India. Observations for related data are being made.
- f. WMO is undergoing major modernization of radio Spectrum Monitoring capabilities through World Bank assisted Telecom Reform Project. Under this the following has been done:-

Antenna Towers have been erected measuring around thirty meters in height for better reception of Radio signal to be used for the sophisticated receiving systems coming under the project at Ajmer, Delhi, Chennai, Nagpur, Mumbai, Shillong and Trivendrum. Installation procedure is processing at Ahmedabad, Jalandhar, Goa, Gorakhpur and Bhopal Wireless Monitoring Stations.

The installation of the LAN (Local Area Network) comprising of thirty workstations has been completed at Wireless Monitoring Organisation Head Quarters (MHQ) Pushpa Bhawan, New Delhi. The ISDN leased lines between Sanchar Bhawan and MHQ have been connected and communication through these lines is possible now. LAN wiring etc., has been completed at several Wireless Monitoring Station's spread all across India.

The various sophisticated electronic hardware/software and computer systems are expected to be integrated with the national system (National Radio Spectrum Management & Monitoring Systems) shortly.

Under the project, forty one numbers of Mobile Wireless Monitoring stations/Vehicles are being procured. These Vehicles are currently under acceptance test by WMO along with the contractors.

**Explanatory Notes regarding shortfall in achievement:**

A total amount of Rs.25 crores have been proposed for wireless Monitoring Organisation for its Technical Schemes & Civil Works. As far as the under utilization of Plan funds during financial year 2005-06 is concerned, it is to state that major portion of the Plan Budget was earmarked for Civil Works of the Wireless Monitoring Organisation. Under utilization of Plan funds may be attributed to various inherent procedural delays in connection with work executing agency i.e. CPWD & concurring authorities i.e. WFD.

Also it is worth mentioning that although Director of the Wireless Monitoring Organisation has been declared head of Department as per DFPR 1978 but in the past there had been a lot of non-clarity over the issue of his financial as well as administrative powers (as H.O.D). Due to this WMO has not been able to finalize/take timely decisions for implementing its Plan Schemes, and hence being unable to utilize the allocated Plan Budget efficiently.

As far as expenditure for the Plan Technical scheme is concerned, it is to mention that the execution of these schemes of WMO are somehow linked with the implementation of the on-going World Bank assisted Telecom Sector reforms project by Project implementation Unit of WPC wherein WMO has to assess/reassess its Plan requirements vis-à-vis this project.

However, it is the endeavor of Wireless Monitoring Organisation to utilize the budgeted fund efficiently.

## FUNCTIONAL PERFORMANCE DATA OF WIRELESS MONITORING ORGANISATION (WMO)

<b>S.No.</b>	<b>Particulars</b>	<b>Actual Performance during 01-04-05 to 31-12-05</b>	<b>Anticipated Performance during 01-01-06 to 31-03-06</b>	<b>Anticipated Performance for the year 2006-2007</b>
1	Monitoring Assignments handled	12472	3043	15500
2	No. of Wireless transmission monitored	115672	61977	182000
3	Technical Assistance to users to maintain their operation within specified standards	861	939	1800
4	Infringements communicated to various wireless users for remedial action	9417	1781	5000
5	Channel days utilized for Radio Monitoring	7207	4793	12200
6	No. of Wireless Station inspected	7931	2133	12000
7	No. of Radio Noise measurements	304769	114748	400000
8	No. of Officials Trained	91	35	160



## TELECOM REGULATORY AUTHORITY OF INDIA (TRAI)

PROGRESS STATUS OF CONSULTANCIES AND TRAININGS UNDER PLAN FUNDS  
DURING 2005-06 (till 31.12.2005)

### (A) Physical progress of Consultancies on Regulatory & Technical Issues

*Ref. Para No.1.3 / Page No.35*

S. No.	Study proposed for 2005-06	Status of Implementation
1.	Study on Measures to Promote Competition in IPLC in India	The Study has been <b>completed</b> . M/s ANALYSYS Consulting, UK was engaged for the study and the consultant had submitted the final report. On the basis of the report and its own analysis, TRAI has submitted its recommendations to the Government on 16.12.2005. Payments have been released to the consultant.
2.	Study on Next Generation Networks	The Study has been <b>completed</b> . M/s Spectrum Strategy, UK was engaged for this study. On the basis of the final report submitted by the consultant, TRAI has issued a consultation paper on 12.01.2006 to hold public consultation on the subject. Payments have been released to the consultant.
3.	Study on System Analysis & Design and Development of System Software	CDAC, Noida, has been engaged for this study. System analysis and design stages of the software have since been completed; Development of System Software is under progress; Study is expected to be completed by March, 2006.
4.	Consultancy from BSE/ NSE for estimation of $\beta$ for telecom	TOR will be finalized by the end of January, 2006. The study will be completed by the end of March, 2006
5.	Study on Quality of Service & Consumer Satisfaction Survey	Contract agreement for the Study on Quality of Service and Consumer Satisfaction Survey has been signed with M/s TUB South Asia Pvt. Ltd. For an amount of Rs. 1.38 crore (approx). The consultancy firm will submit their reports for four quarters (January to December, 2006). An amount of about Rs.7.0 lacs would be incurred in the current financial year.

6.	Engaging consultant for conducting household survey of cable viewing	M/s TAM Media Research has been engaged for conducting household survey of cable viewing for the quarters ending September 2005, December 2005 and March 2006. The study will be completed in April 2006.
7.	Participation of an expert from Japan on use of broadband by the cable industry in India	Completed. Payment of about Rs.3.90 lacs has been released to the expert for his participation in the workshop.
8.	Legal aspects of growing telecom technology in a regulatory regime- Lessons from USA, UK, Europe, Australia and Malaysia	TOR has been approved by the Authority. Expression of Interests (EOIs) has been invited from five consultancy firms till 17.01.06. Thereafter, proposals will be evaluated for selecting the consultant. Expected to be completed by March, 2006
9.	Short Consultancy on Mobile Number Portability	On the basis of the recommendation of the Evaluation Committee, an agreement for consultancy study has been signed with M/s NE Technologies. Preliminary report and questionnaire received from the consultant have been sent to CMSPs for their feedback. Thereafter, the consultant will finalize the draft report.
10.	Short Consultancy on Mobile Virtual Network Operators	Technical bids have been evaluated and report of the evaluation committee has been accepted by the Authority. Financial bid is to be opened shortly. Thereafter, contract will be awarded to the selected consultant.
11.	Short Consultancy on Licensing, Interconnection and other regulatory issues related to Fixed Mobile Convergence	The proposed study has since been dropped.
12.	Study on Interconnection in the Converged Multi-operator, Multi-service Scenario	A study paper has been prepared in-house. Need for hiring an expert on the subject would be decided after the ongoing consultation process on the Paper on Next Generation Networks.
13.	Study on Issues related to Promotion of Competition in Domestic Leased Circuits Market in India	Based on in-house study, draft consultation paper will be finalized by the end of January, 2006.

14.	Procurement of Test Drive Equipments for monitoring of quality of service	Specification of equipments has been finalized. Tender documents are being issued for obtaining bids. An amount of Rs.60.0 (approx.) lacs are expected to be incurred by March, 2006
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**(B) Trainings**

During the year 2005-06, TRAI officials participated in the following international trainings on regulatory and technical issues under ‘Plan’ expenditure:

S.No.	Name of the Training Course	No. of officials
1.	Australian Communication Authority’s training course on Spectrum Management and Frequency Assigning (14-25 November 2005) at Melbourne/ Canberra	02
2.	Australian Communication Authority’s training course on Regulation of Telecommunications (14-23 November 2005) at Melbourne/ Canberra	02
3.	Training course on Best Practices in Regulating Telecommunications & IT Services organized by the Institute of Public-Private Partnerships, USA (5-16 December 2005) at Washington, DC	03
4.	Telecommunications Regulatory Master Classes (7-11 November 2005) organized by Interconnect Communications, UK at Bath, UK	06

**Financial Progress (upto 31.12.2005)**

Out of an allocated amount of Rs. 3.0 crore, an amount of Rs. 1.14 crore has since been incurred and an amount of Rs.1.50 crore is expected to be incurred on the ongoing studies/procurements.

**TELECOM DISPUTES SETTLEMENT AND APPELLATE TRIBUNAL***Ref. Para No.2.3/ Page No.35*

Sl. No.	Name of Scheme/ Programme	Objective	Outlay (BE) 2005-06	R.E. for 2005-06	Expenditure up to 31.12.2005 (in Rs.)	Processes/ Timelines	Performance up to 31.12.2005	Remarks
1.	Upgradation of library	Purchase of hardware and software, books and others accessories for the utilization in the library	15 lakhs	5 lakhs	3,77,209	31.3.2006	Computer hardware and books relating to telecommunication have been purchased to upgrade the library of TDSAT.	During remaining period of financial year the TDSAT library would be further upgraded by purchase of hardware & software and latest books on telecommunication and broadcasting
2.	Study tours of Chairperson and Members of Telecom Disputes Settlement and Appellate Tribunal and training of staff.	The objective of the study tours of Chairperson and Members to various countries is to familiarize them with regulatory and disputes settlement mechanisms in the telecom sector. The objective of training of officials of TDSAT is human resource development of TDSAT.	50 lakhs	45 lakhs	24,09,483	31.3.2006	Five officers of TDSAT have undergone training on subjects relating to telecommunication at ICC, Bath and IP-3, Washington.	A study tour of Hon'ble Bench Members of TDSAT to Australia and Newzeland is being organized during 2 <sup>nd</sup> week of February 2006. An officer has been deputed for training at PURC, Gainesville from 9 <sup>th</sup> January to 20 <sup>th</sup> January 2006.
3.	Seminars and appointment of consultant	The objective of holding seminars at various places in the country is to generate awareness amongst various stakeholders about the disputes settlement mechanisms in the telecom, broadcasting and cable sectors. The objective of appointment of Consultant is to facilitate the Chairperson and Members in the adjudication of disputes and also to do research in legal matters relating to telecom, broadcasting and cable sectors.	35 lakhs	20 lakhs	15,17,652	31.3.2006	Three seminars at Jaipur, Hyderabad and Guwahati have been organised by TDSAT on Disputes Resolution Mechanism and Redressal of Consumer Grievances	Two seminars on 25.02.2006 and 25.3.2006 are being organized at Kochi and Bhubneshwar respectively.
	<b>Total</b>				43,04,344			

**Explanatory note for shortfall in achievement**

The performance up to 31<sup>st</sup> December 2005 in respect of three programmes, as mentioned at column 2 of the statement of Performance Budget, of the plan scheme of Telecom Disputes Settlement and Appellate Tribunal for the year 2005-06 has no shortfall as far as quality is concerned. The shortfall in quantity is primarily due to vacancy of the office of Chairperson. Hon’ble Chairperson Mr. Justice N. Santosh Hegde joined TDSAT on 27.6.2005. After His Lordships assumption of office of Chairperson TDSAT, the implementation of plan scheme started in full swing. It is considered that in the remaining period of the financial year the performance objectives would be fulfilled to make plan scheme a success.

## CENTRE FOR DEVELOPMENT OF TELEMATICS

Ref. Para No.3.12/ page No.39

S. No.	Scheme/Program Name	Objective / Outcome	Outlay 2005-06 (Rs. in crores)	Exp (till Dec'05) (Rs. in crores)	*Quantifiable Deliverable(s) (As on Dec'05)	Physical Outcome (as on Dec'05)
1	Advanced Intelligent Network (IN)	To Demonstrate a Plot IN Sys. for Converged Network	4.57	1.65	<ul style="list-style-type: none"> <li>Pre-paid IN implementation for existing platform with operators</li> <li>IN soln for small &amp; cost effective platforms (SSIN)</li> <li>Pilot trial commencements for Intelligent Peripheral (IP/SRP) initially for wireline &amp; pgressively</li> </ul>	<ul style="list-style-type: none"> <li>Implementation awaiting requirements from operator</li> <li>SSIN development activities completed</li> <li>IP / SRP: Development completed, testing in pgress</li> </ul>
2	Cell & Packet Tech for voice & data convergence	<ul style="list-style-type: none"> <li>To demonstrate C-DOT integrated NGN pilot system in the field with various VoIP subsystems e.g. IP/MPLS routers, VoIP gateways</li> <li>To customise ATM Network Interface Unit (NIU), for work reliability &amp; optimisation</li> </ul>	21.22	9.98	<ul style="list-style-type: none"> <li>IP/MPLS router stand alone testing &amp; C-DOT IP/MPLS router pilot trial commencement</li> <li>Class 4 VoIP network trial commencement with strategic partners; integration &amp; testing for other VoIP subsystems</li> <li>ATM NIU enhancement' customization completion</li> </ul>	<ul style="list-style-type: none"> <li>IP/MPLS Router – development in progress with completion of control plane modules testing. Data plane modules design started.</li> <li>Field trial sites allocated. Technical design of trials completed. Procurement of external components in progress</li> <li>ATM NIU enhancements' customization completed.</li> </ul>
3	Innovative Services for Business & Industry	<ul style="list-style-type: none"> <li>To develop &amp; pilot trial a Call Interception &amp; Intelligent system (CIIS)</li> <li>To enhance the NMS &amp; OSS systems &amp; support for NMS deployment in the field for GSM &amp; National TAX NMS</li> </ul>	19.15	4.62	<ul style="list-style-type: none"> <li>CIIS – Mediation function testing for CIIS; pilot trial commencement for TDMA based network for C-DOT MAX</li> <li>OSS – Enhancement for SMS based value added services; pilot trial commencement for clearing house, CRS, CMS etc. applications</li> <li>NMS support for the field trial</li> </ul>	<ul style="list-style-type: none"> <li>CIIS – Mediation function integrated with lawful interception system (CIIS) &amp; testing completed. A prototype system demonstrated, demo setup created &amp; shown to MTNL and TEC. Testing of pilot LEMF appln with multiple LEMF completed</li> <li>OSS- Module level testing &amp; integration for clearing house (CLH) for national roaming application completed &amp; under internal validation</li> <li>As part of NMS support in field the field trial for multi tech NMS namely, GSM NMS (GNMS) completed for 3 types of switches.</li> </ul>

**Abbreviations:**

ATM : Asynchronous Transfer Mode; BTS: Base Transciever Station; CIIS: Call Interception & Intelligence System; CWDM: Coarse WDM; DWDM: Dense Wavelength Division Multiplexing; GPON: Gigabit Passive Optical Network; IN: Intelligent Network; IP/MPLS: Internet Protocol/Multi Protocol Lable Switching; LEIF / LEMF: Lawful Enforcement Interception / Monitoring Function; NIU: Network Interface Unit; NGN: Next Generation Network; OSS: Operating Support Systems;

\* **Quantifiable deliverables: Targets indicated correspond to Q1-Q3 (upto Dec '05) of the format provided.**

**ANNEXURE – “N” (contd.)**

S. No.	Scheme/Program Name	Objective / Outcome	Outlay 2005-06 (Rs. in crores)	Exp (till Dec'05) (Rs. in crores)	*Quantifiable Deliverable(s) (As on Dec'05)	Physical Outcome (as on Dec'05)
4	Wireless & Mobile Communication	Feasibility trial of rural wireless system for GSM & broadband services	13.38	6.86	<ul style="list-style-type: none"> <li>System integration completion for GSM voice services, sub-system standalone testing for broadband services &amp; pilot trial commencement of integrated rural wireless system</li> </ul>	<ul style="list-style-type: none"> <li>Testing of BTS &amp; BSC completed. Integration of GSM subsystem with other network components underway. Integration of different Broadband Access system components underway. Design work for most indigenous sub-systems are completed. Implementation of sub-systems underway.</li> </ul>
5	High Bit Rate Network Backbone on Fibre & Sat.	<ul style="list-style-type: none"> <li>To commence the pilot/field trial for C-DOT DWDM technology, broadband satellite in Ku band, CWDM development and pilot trial for broad band satellite in Ku band</li> <li>To pilot try a GPON tech in the field initially with outsourced components &amp; initiating sub-system development</li> </ul>	14.21	5.77	<ul style="list-style-type: none"> <li>Field/Pilot trial commencement for DWDM system, broadband satellite system in Ku band &amp; GPON pilot trial in field with outsourced components</li> </ul>	<ul style="list-style-type: none"> <li>Field trial commenced for DWDM system with completion of installation at 8 different sites &amp; acceptance testing completed</li> <li>Internal val completed for Ku band system &amp; feedback implementation in progress</li> <li>Pilot trial for GPON system with outsourced component could not commence as strategic alliance planned did not work out for the same. However, MoU has been signed with strategic partner to take up development for some of subsystem of GPON &amp; corresponding study completed for required chip set and design has started</li> </ul>
6	Campus	Commencement of housing complex and part completion	5.44	3.63	<ul style="list-style-type: none"> <li>Commissioning of bldg mgmt system, external lighting etc.</li> <li>Commencement of housing complex construction</li> </ul>	<ul style="list-style-type: none"> <li>Bldg mgmt system, external lighting, etc completed.</li> <li>Tender document preparation for residential complex have completed and kept ready. Clearance from MCD department awaited. Civil work for housing sub station control room in</li> </ul>
7	Product Support Enhancement/Field Support	Technology upgradation to take care of obscelence	40.43	24.15	Feature enhancement/upgradation for technology deployed in the field	Ongoing activity
8	C-DOT Acatel Research Centre. A Joint Venture Program-Equity Participation	Development of WiMAX Technology	13.00	13.00	Setting-up of related infrastructure	Preparatory work is in full swing
9	Additional Expenditure on account of P.O. placed for Component & Equipments in respects of various projects			4.38		
	<b>Total</b>		<b>131.40</b>	<b>74.04</b>		

**Abbreviations:**

ATM : Asynchronous Transfer Mode; BTS: Base Transciever Station; CIIS: Call Interception & Intelligence System; CWDM: Coarse WDM; DWDM: Dense Wavelength Division Multiplexing; GPON: Gigabit Passive Optical Network; IN: Intelligent Network; IP/MPLS: Internet Protocol/Multi Protocol Lable Switching; LEIF / LEMF: Lawful Enforcement Interception / Monitoring Function; NIU: Network Interface Unit; NGN: Next Generation Network; OSS: Operating Support Systems;



\* **Quantifiable deliverables:** Targets indicated correspond to Q1-Q3 (upto Dec '05) of the format provided.

## BHARAT SANCHAR NIGAM LIMITED

Ref. Para No.2.1.3/Page No.26

Outcome / Targets in the Outcome Budget							
S.No.	Name of Scheme/ Programme	Objective /Outcome	*Outlay 2005-06 (in Rs. crores)	# Quantifiable Deliverables	Actual Achievement (upto 31-12-05)	Processes/ Timelines	Remarks / Risks/ constraints
1	DELs (Direct Exchnage Lines)	Provision of DELs on Demand	Outlay for provision of 75 Lakh DELs	Total 75 Lakh		DELs target includes	(1) Availability of Demand
				1st Quarter 7.5 Lakh	5.50 Lakh	(I) 65 lakh mobile connections	
				2nd Quarter 11.25 Lakh	16.89 Lakh	(ii) 10 Lakh fixed connecitons	(2) Non Availability of Power in rural / remote areas
				3rd Quarter 18.75 Lakh	24.87 Lakh		
				4th Quarter 37.5 lakh			
2	Rural DELs	Help Raising the Rural Teledensity	Annual 13901 Cr  1st Quarter 1420 Cr	Total 8 Lakh DELs			(3) Buffer Zone
				1st Quarter 1.0 Lakh	80928		(4) Non vacation of allotted GSM frequencies by Defence
				2nd Quarter 1.6 Lakh	265143		
				3rd Quarter 3.2 Lakh	261980		
				4th Quarter 2.2 Lakh			
3	VPTs (Village Public Telephones)	Provision of VPTs as per USO agreement	2nd Quarter 2356Cr	Total 12500 VPTs			(5) Allocation of GSM frequencies in 1800 MHz Band instead of 900 MHz Band
				1st Quarter 2650	1182		
				2nd Quarter 3305	3358		
				3rd Quarter 3555	4254		
				4h Quarter 2990			
4	MARR Replacement	Replacement of all VPTs on MARR with WLL / LL	3rd Quarter 4252 Cr	Total 76734			(6) Delay in spectrum allocation in 15 GHz band and for WCDMA
				1st Quarter 11520	2381		
				2nd Quarter 15377	14389		
				3rd Quarter 26877	10671		
				4th Quarter 22960			(7) Scarcity of steel for infrastructure roll out

5	RCPs (Rural Community Phones)	Provision of Second Public Telephone in villages with population more than 2000	4th Quarter 5873 Cr	Total 5992		(8) Delay in SACFA clearance
				1st Quarter 964	1681	
				2nd Quarter 1288	3576	
				3rd Quarter 1755	1930	
				4th Quarter 1985		

## ANNEXURE – “O” (contd.)

S.No.	Name of Scheme/ Programme	Objective /Outcome	*Outlay 2005-06 (in Rs. crores)	# Quantifiable Deliverables	Actual Achievement (upto 31-12-05)	Processes/ Timelines	Remarks / Risks/ constraints	
6	Internet Connections		Outlay for Broadband / Internet  Annual 1180 Cr	Total 8 Lakh connections			(9) Tower Tax imposition and delay in clearance for tower erection by State Govt.s	
				1st Quarter 1.2 Lakh	229657			
				2nd Quarter 2.0 Lakh	86911			
				3rd Quarter 2.4 Lakh	308221			
				4th Quarter 2.4 Lakh				
7	Broadband Connections			Total 4.5 Lakh connections			(10) Delay in availability of commercial power	
				1st Qtr. 87.4 Cr	1st Quarter 33400			42108
				2nd Qtr. 307.5 Cr	2nd Quarter 117250			91430
				3rd Qtr. 530.4 Cr	3rd Quarter 202250			188555
				4th Qtr. 254.5 Cr	4th Quarter 97100			

\* (I) Outlay is as per the approved annual plan for 2005-06

\*  
(ii) Outlay for Rural DELsVPTs, MARR Replacement, RCPs is included in outlay for DELs at Sr. No. 1

#  
(iii) Physical target for DELs, Rural DELs, Internet connections and Broadband connections as per annual plan 2005-06

#  
(iv) Physical targets for VPTs are as per USO agreement

## MAHANAGAR TELEPHONE NIGAM LIMITED

Ref. Para No. 2.2.1.7 /Page No.28

## Monthly Progress both for Financial&amp; PhysicalOutcomes for different Development Programme/Scheme for the year 2005-06 (December-05)

Sl. No.	Name of Scheme/ Programme	Financial Outlay RE(2005-06 ) (Rs.in Crs.)			Quantifiable/ Deliverables	Total Commulative Progress (Unaudited/Provisional) upto 31.12.2005					
						PHYSICAL OUTCOMES			FINANCIAL OUTCOMES (Rs. in crore)		
		DELHI	MUMBAI	TOTAL		DELHI	MUMBAI	TOTAL	DELHI	MUMBAI	TOTAL
1	Switching (including TAX/Tandem) and Access lines (including CDMA/WLL Handsets, GSM) in existing and new areas	570	545	1115	i) Additions of 1000K lines in net switching capacity including capacity for WLL & GSM	-103620	147037	43417*	256.06	189.38	445.44
					ii) Addition of 48K lines of TAX/Tandem capacity			**			
					iii) Additions of 18000 Optical Fibre Kms.	15653	8638	24291			
					iv) Broadband Capacity 380K	201800	140232	#342032			
2	IT related services	22	27	49	i) Convergent billing			\$	1.66	7.84	9.50
					ii) Certifying Authority						
					iii) Others						
3	International Long Distance Operations			30	To start ILD operations	License awaited					
4	Expansion in New Service Areas Abroad and National acquisitions			25	i) To start operation in Mauritius	Being explored					
					ii) To expand in other areas						
	<b>TOTAL</b>	<b>592</b>	<b>572</b>	<b>1219</b>					<b>257.72</b>	<b>197.22</b>	<b>454.94</b>

\* 284K of E-10B equipment scrapped

\*\* Tender for 48K lines under finalization

# Order for 380K placed and supplies are being received/installed.212.6K installed

\$ Order placed delivery in 2006-07

