GOVERNMENT OF INDIA

OUTCOME BUDGET

2013-2014

MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY

(Department of Telecommunications)

INDEX

Executive Summary

A system of performance budgeting by Ministries handling development programmes was introduced to assess the performance against the set out goals/objectives. However, it was felt that the document is not able to establish a clear one-to-one relationship between the Financial Budget and the Performance Budget and inadequate target setting in physical terms of the ensuing year. Therefore, in addition to the performance budgeting, the outcome budgeting was introduced. It was thought that there is a need to track not just the intermediate physical 'outputs' that are more readily measurable but the "outcomes" which are the end objectives. Thus, the Outcome Budget has become an integral part of the budgeting process since 2005-06.

As per the latest guidelines issued by Ministry of Finance vide letter No.10(3)/E.Cord/2012 dated 1st January, 2013, OUTCOME BUDGET 2013-14 will broadly indicate the physical dimensions of the financial budgets as also the actual physical performance in 2011-12, performance for the first nine months of the year (2012-13) and the targeted performance during 2013-14. In pursuance to the instructions issued by Ministry of Finance, Outcome Budget 2013-14 has been prepared for the Department of Telecommunications.

Telecommunications has seen impressive expansion and large investments in the past several years with teledensity increasing from 26.2 per cent in 2008 to more than 70 per cent in 2012. The expansion has been led by private sector service providers whose market share (in terms of number of connections) increased in this period from 73.5 per cent to 86.3 per cent.Today, India's 895.50 million (including 864.72 million of wireless telephony) strong telephone network is the second largest wireless network in the world. The mass market growth in India is led by the mobile segment. This growth in the telecom network has resulted in an overall teledensity of 73.34% at the end of December 2012. The target of 500 million connections by December 2010 has already been achieved by September 2009. This growth in the telecom sector is attributable not only to the proactive and positive policy initiatives of the Government but also to the entrepreneurial spirit of the various telecom service providers both in public and private sector.

There is tremendous scope for further expansion in telecommunications, especially with the introduction of 3G services. Telecommunications, and the associated increase in Internet connectivity is clearly a productivity enhancing development, and India is well placed to benefit from this.

The plan of telecom expansion by the Government is mainly carried out through its PSU's[1]. The Internal and Extra Budgetary Resources (IEBR) of the PSU's fund the development and expansion activities. The gross budgetary support in the Budget Estimate 2013-14 is towards the outlays of WPC[2], WMO[3], TEC[4], TRAI[5], TDSAT[6], C-DOT[7], NICF[8] and four departmental projects.

[1] Public Sector Undertakings
[2] Wireless Planning and coordination
[3] Wireless Monitoring Organization
[4] Telecommunication Engineering Centre
[5] Telecom Regulatory Authority of India
[6] Telecom Dispute Settlement &Appellate Tribunal
[7] Centre for Development of Telematics

The Universal Service Support Policy of the Government is executed through the Universal Service Obligation Fund (USOF). The resources for meeting the same are generated through a Universal Service Levy which is 5% of the Adjusted Gross Revenue (AGR) earned by all the operators except pure value added service providers like internet service provider, voice mail etc. The outlays for USOF forms part of the plan expenditure of the Department.

The Plan as well as Non-Plan expenditure is monitored on a monthly basis vis-à-vis the allocation as well as the targeted milestones of the project. Corrective actions are taken wherever required depending upon the utilization of the funds as well as the achievement of the targeted milestones. The monthly accounts of the Department are also available on the Department's website, *www.dot.gov.in*.

The Rural Telephony objectives which are achieved through USOF are available for public scrutiny as the monthly progress under USOF is made available on the Department's website, *www.dot.gov.in*. Similarly, the information regarding the progress of covering the uncovered 62302 villages under the flagship "Bharat Nirman" programme is available on the website.

This document intends to highlight the specific objectives of projects/schemes, their outcomes and the development activities of the Department of Telecom and its PSUs. The document is divided into six chapters. Chapter I gives a brief introduction on the role and functions of the Department, the vision statement of the Department and its organizational set up including the PSUs under its administrative control. Chapter II is primarily in a tabular format and its main objective is to illustrate one-to-one correspondence between Financial Budget 2013-14 and the physical targets for 2013-14. Chapter III gives a snapshot view of the reform measures undertaken by the Department and various policy initiatives that have helped in fuelling the phenomenal growth in the sector with particular focus on the initiatives undertaken during past 2-3 years. Chapter IV is the review of the past performance during the year 2011-12, 2012-13 (up to December 2012) and includes a bird's eye view of the status of telecom sector as a whole. Chapter V broadly examines the overall trend in expenditure vis-à-vis Budget Estimates/Revised Estimates. The position regarding utilization certificates and unspent balances has also been indicated. Chapter VI presents a review of the statutory & autonomous bodies under the Department.

[8] National Institute of Communication Finance

CHAPTER I

I. Introduction

1.1 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, had 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 other forms of telecommunication. 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 1st October, 2000.

1.1.1 The Department of Telecommunication which forms part of the Ministry of Communications and Information Technology now remains responsible for policy formulation, licensing, wireless spectrum management, universal service obligation and the administration of various Acts pertaining to telecommunication.

1.1.2 An independent Regulator was set up by the 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 Regulatory Body

i) Telecom Regulatory Authority of India [TRAI]

Statutory Tribunal

i) Telecom Disputes Settlement and Appellate Tribunal [TDSAT]

Autonomous body

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

Attached/Subordinate Offices

i) Wireless Planning Coordination (WPC) & Wireless Monitoring Organization (WMO)
ii) Telecom Engineering Centre (TEC)
iii) Administrator, Universal Service Fund (USF)
iv) Controller of Communication Account Offices (CCA)
v) Telecom Enforcement, Resources and Monitoring (TERM) cells previously known as Vigilance and Technical Monitoring (VTM) cells.

Public Sector Undertakings

i) Bharat Sanchar Nigam Limited – Govt. holding 100%
ii) Mahanagar Telephone Nigam Limited – Govt. holding 56.25%.
iii) ITI Limited – Govt. holding 92.87%
iv) Telecommunications Consultants India Limited – Govt. holding 100%
v) Bharat Broadband Network Limited – Govt. holding 100%

II. Role and Functions

1.2 Following are some of the functions assigned to the DoT under Government of India (Allocation of Business), Rules, 1961:

i) Policy, Licensing and Coordination matters relating to Telegraphs, Telephones, Wireless, Data, Facsimile and Telematics Services and other like forms of communications.

ii) International cooperation in matters connected with telecommunications, including matter relating to all international bodies dealing with telecommunications such as International Telecommunication Union (ITU), its Radio Regulation Board (RRB), Radio Communication Sector (ITU-R), Telecommunication Standardization Sector (ITU-T), Development Sector (ITU-D), International Telecommunication Satellite Organization (INTELSAT), International Mobile Satellite organization (INMARSAT), Asia Pacific Telecommunication (APT).

iii) Promotion of Standardization, Research and Development in Telecommunications.

iv) Promotion of private investment in Telecommunications.

v) Procurement of stores, and equipment required by the Department of Telecommunications.

vi) Telecom Commission

vii) Telecom Regulatory Authority of India

viii) Telecom Disputes Settlement and Appellate Tribunal.

ix) Administration of laws with respect to any of the matters specified in this list, namely:

(a) The Indian Telegraph Act 1885 (13 of 1885)
(b) The Indian Wireless Telegraphy Act, 1933 (17 of 1933); and
(c) The Telecom Regulatory Authority of India Act, 1997 (24 of 1997).

x) Indian Telephone Industries Limited.

xi) Post disinvestment matters relating to M/s Hindustan Teleprinters Limited

xii) Bharat Sanchar Nigam Limited.

xiii) Mahanagar Telephone Nigam Limited.

xiv) All matters relating to Centre for Development of Telematics (C-DOT)

xv) Residual work relating to the erstwhile Department of Telecom Services and Department of Telecom Operations, including matters relating to

a) Cadre Control functions of Group 'A' services and other categories of personnel till their absorption in Bharat Sanchar Nigam Limited;

b) Administration and Payment of terminal benefits.

xvi) Execution of works, purchase and acquisition of land debitable to the capital Budget pertaining to telecommunications.

III. Vision Statement of the Department

1.3 To develop a strong and vibrant technology neutral telecom sector with enhanced participation of private sector that can:

- Propel India into the forefront among the global economic superpowers with high quality and cost-effective telecom infrastructure and services support.
- Ensure that the India's rural masses have easy access to the info-highways leading to education, knowledge, commerce and health, thereby bridging the digital divide.
- Provide opportunities for private investment both in services sector and manufacturing sectors leading to creation of employment, particularly in rural areas.
- Keep India technically advanced; initiate R&D in cutting-edge telecommunication technologies.

IV. Organizational set up

1.4 Department of Telecommunications

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, modelled 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. Till 30.9.2000, the Commission directly oversaw the operations and the developmental activities of the Department of Telecom Services. After the formation of BSNL, it remains responsible for policy matters, licensing, spectrum management and co-ordination.

1.4.1 Wireless Planning and Co-ordination (WPC) Wing

1.4.1.1 Introduction

The WPC wing in the Department of Telecommunications deals with the policy of spectrum management, wireless licensing, frequency assignments, international coordination for spectrum management and administration of Indian Telegraph Act, 1885, for radio communication systems and Indian Wireless Act, 1933 (IWTA)

1.4.1.2 Functions

The Wireless Planning and Co-ordination (WPC) Wing of the Ministry of Communications & IT 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) 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.

V. Attached/Field Offices of DoT

1.4.2 Controller of Communication Accounts

The Offices of Controller of Communication Accounts (CCA) came into existence on 1.10.2000, following the Corporatization of the erstwhile operational arms of the DoT. These were created with a view to ensure smooth and efficient performance of major functions of the Department of Telecom at the field level. They have played a crucial role in ensuring smooth management of retirement and other terminal benefits to lakhs of employees of DoT, BSNL and MTNL.

1.4.2.1 Functions being performed by CCA Offices

The 25 CCA offices spread across the length and breadth of the country are performing following important functions:

i. **Disbursement of Pension:** CCA offices are responsible for the settlement of pensionary and terminal benefits i.e. issue of pension payment orders, authorization of payment of commuted value of pension, gratuities, recovery of pension contribution, etc.

ii. **GPF, Loans and Advances:** The CCAs are responsible for maintenance of GPF accounts and recovery/ accounting of long term advances taken by employees.

iii. **License Fee collection:** Majority of the licensees is under revenue share regime of license fee. License Fee is based on fixed percentage of Gross Revenue/Adjusted Gross Revenue. The CCAs assess and collect license fee from the telecom service providers in the circle. The preliminary scrutiny of license fee related documents as per license agreement is also performed by them. CCA offices deal with license fee related work in respect of the licensees under UASL/Basic/CMTS/NLD and other services.

iv. **Maintenance of Financial Bank Guarantees**: The CCAs have been entrusted with the work of maintenance, renewal, revision and invocation of Financial Bank Guarantees submitted by the licensees.

v. **Verification of Deductions**: As per the license agreement, licensees claim deductions to calculate license fee payment. The CCAs are verifying the deductions on a quarterly basis (on account of pass through charges, roaming service charges, sales tax , service tax) claimed by the licensees . The deductions claimed vary from 23% to 91% of the Gross Revenue under different categories of licenses.

vi. **Spectrum Charges:** The CCAs are responsible for collection and monitoring of Spectrum Revenue from Telecom service providers in respect of the licensees relating to GSM/CDMA/UASL etc.

vii. **Universal Service Obligation:** The CCA offices are responsible for the verification of USO subsidy claims of the eligible service providers and release of payments. They are also responsible for physical inspection of facilities and monitoring the progress of Rural Telephony which has a direct bearing on subsidy disbursed.

viii. **Legal Matters:** The CCAs also handle court cases at field level where the Government of India is a party in matters of licence fees, spectrum fees, pension, absorption issues and other legal issues in which the Department of Telecom, Government of India is made a respondent etc.

ix. **Pension Adalats:** The CCAs also hold Pension Adalats and liaison with State Departments and other ministries on various issues.

1.4.3 Telecom Enforcement, Resource and Monitoring Cells (TERM Cells):

1.4.3.1 With the increasing number of telephone operators in the country the Government felt the need of presence of Telegraph Authority in the circles. The TERM cells are functioning as the field offices of the DoT. These cells perform the vigilance and monitoring functions.

1.4.3.2 Vigilance Functions:

i. To Carry out inspection of premises of service providers(illegal) in order to curb illegal / clandestine activities
ii. Inspection of premises of the licensed service provider
iii. Control over clandestine / illegal operation of telecom networks by vested interest having no license
iv. To file FIR against the culprits, pursue the cases; issue notices indicating violation of conditions of various Acts in force from time to time.
v. Analysis of call/subscription/traffic data of various licensees.
vi. Technical arrangement for the lawful interception / monitoring of all communications passing through the licensee's network.
vii. To ascertain that the licensee is providing the services within permitted area.

1.4.3.3 Monitoring Functions:

i. Coordination and monitoring of various network operators.
ii. To check the compliance to the roll-out obligation as per license condition
iii. Checking of the compliance by the licensee in respect of the license conditions and any directions issued by the licensor in public interest.
iv. To ensure optimum call completion ratio of inter operator calls.
v. Matters related to national security.
vi. Disaster Management: Taking over of network in the events of natural calamities or the other emergency situations.
vii. Grievance redressal of subscribers in respect of deficiency by various operators.
viii. Perform such other functions as may be entrusted to it from time to time by the DOT in overall interest of the country and consumers

1.4.4 Telecommunication Engineering Centre (TEC)

1.4.4.1 Telecommunications Engineering Centre (TEC), is a Technical wing of the Department of Telecommunications (DoT), Ministry of Communications and Information Technology, Government of India. In addition to providing technical support to DoT, TEC also publishes documents detailing the technical requirement for all telecom equipments to be used in various telecom networks in India. It also tests and certifies telecom product and networks for conformance to the aforesaid requirements as well as for interoperability. Its major activities and responsibilities are:

- Formulation of technical requirements, viz., Generic, Interface, and Service Requirements, for all telecom equipments, interfaces, and services to ensure seamless interworking of different networks of various telecom service providers in India.
- Formulation of Fundamental National Telecom Plans, viz., Numbering Plan, Spectrum Management Plan, Transmission Plan, Switching Plan, Synchronization Plan, and provide technical support to service providers in implementing them.
- Formulation of standards to limit harmful electromagnetic interference to ensure proper functioning of equipment, as well as to ensure safety for human beings.
- Formulation of norms to ensure optimal utilization of scarce resources, like radio spectrum
- Testing and certification of equipment, interfaces, and networks for conformance and interoperability
- Testing and certification of equipment, to promote indigenization and manufacturing take-off in India by active co-operation with C-DOT, to develop telecom technologies aimed specifically for rural areas.
- Monitoring of the network for compliance to the laid-down norms and standards
- Interaction with other forums, stakeholders and associations, and international telecommunication standards organizations, for standardization and for protecting the interests of India
- Functioning as Designating Authority (DA) for India, for designation of domestic and recognition of foreign Conformance Assessment Bodies (CAB) and Certification Bodies (CB) for testing and certification of telecom products for the use in the countries having Mutual Recognition Agreement (MRA).

1.4.4.2 TEC has the following technical Core Divisions which handle various activities in standardization of technical requirements of telecom products and networks related to the technology streams

- Fixed Line Access
- Information Technology
- Mobile Communication
- Network Terminals with Customer Premise Equipment
- Radio
- Services and Applications
- Spectrum
- Switching
- Transmission

In addition, Technical Divisions handle various other activities.

- Conformity Assessment Bodies (CAB) and Training
- Next Generation Network (NGN) Test-bed

- Next Generation Network (NGN) Coordination
- Testing and Certification (T&C) with the help of following Regional Centres

  (i) Regional TEC, Delhi for Northern Zone
  (ii) Regional TEC, Kolkata for Eastern Zone
  (iii) Regional TEC, Mumbai for Western Zone
  (iv) Regional TEC, Bangalore for Southern Zone

1.4.4.3 TEC publishes a number of technical documents. To ensure compliance to Conformance, Interoperability, EMI/EMC, Security, Safety, Health issues in telecom equipment, the following documents are published.

- Generic Requirements (GR)
- Interface Requirement (IR)
- Service Requirement (SR)
- Standards Document (SD)

1.4.5 Wireless Monitoring Organization (WMO)

The Wireless Monitoring Organization (WMO) is field organization of the WPC Wing of the DoT, Ministry of Communications & IT.

The WMO has a network of 22 Monitoring Stations spread all over the country to monitor (technical and operational parameters of) all wireless transmissions, both Government and Non-government agencies. These stations resolve cases of harmful interference as well as collect data on vacancy/occupancy of Radio Frequency Spectrum, identify and to locate unauthorized wireless transmissions. To ensure mutual compatibility and efficient working of various services like microwave, LOS links, Radar, Cellular Radio Telephones etc., Mobile monitoring is also carried out.

An International Satellite Monitoring Earth Station is functioning at Jalna (Maharashtra) with its primary objective to protect Indian Satellite Systems from the interference caused by the transmissions of the foreign satellite systems by monitoring/checking of various technical parameters.

1.4.6 Administrator, Universal Service Obligation Fund (USOF)

The Universal Service Obligation Fund aims to provide telecommunication services to people residing in rural and remote areas of the country at affordable price. 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 VPTs[9], RCPs[10], as well as provision of rural household telephones

[9] Village Public Telephones
[10] Rural Community Phones

(RDELs) in the identified net high cost rural/remote areas. 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:

i. Implementation of the guidelines laid down by Government for providing Universal Service Support;
ii. Enter into Agreement with the Universal Service Providers for the purposes of implementation of Universal Service Obligation.
iii. Suggesting such changes in policy as may be deemed necessary for implementation of Universal Service Support;
iv. Forecasting the requirement of Universal Service Funds for each financial year and obtaining approval of Government through Department of Telecom; and
v. Ensuring that the prescribed Universal Service Levy is credited to the appropriate Universal Service Fund on a regular basis.

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.

VI. Regulatory Authority/Appellate Tribunal

1.4.7 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 28th 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. 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 Notification of the Government dated 9th 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.

1.4.7.1 Functions of TRAI

1.4.7.1.1 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.

1.4.7.1.2 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.

1.4.7.1.3 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.

1.4.8 Telecom Disputes Settlement & Appellate Tribunal (TDSAT)

Telecom Disputes Settlement & Appellate Tribunal (TDSAT) was established in the year 2000 by Government of India after amending the Telecom Regulatory Authority of India Act, 1997. The Tribunal consists of a Chairperson, and two members. The TDSAT adjudicates disputes between licensor and licensee, between two or more service providers, between a service provider

and a group of consumers and hear and dispose of appeals against any decision or order of the Telecom Regulatory Authority of India. The Tribunal has original as well as appellate jurisdiction. As per Section 16 (1) of the Act, the Appellate Tribunal is not bound by the procedure laid down by the Code of Civil Procedure but is guided by the Principals of Natural Justice and subject to the other provisions of the Act, the Appellate Tribunal has powers to regulate its own procedure.

In exercise of the powers conferred by the proviso to clause (k) of sub-section (1) of Section 2 of the Telecom Regulatory Authority of India Act, 1997 (24 of 1997), the Central Government by Notification No. 44(E) dated 9.1.2004 notified the "broadcasting services" and "cable services" to be "telecommunication service".

TDSAT has also developed its own Website and all the important judgments and other activities of this Tribunal are available on the Website www.tdsat.nic.in.

VII. Autonomous Body

1.4.9 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 organization is funded mainly by way of grants-in-aid from the Government.

1.4.9.1 Key Objectives

i. Development of total telecom solutions, technologies and application for the fixed line, mobile and packet based converged network & services with particular emphasis on rural and remote areas.
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 the futuristic trends.
iv. Research and development in the telecom security arena of telecom equipment as well as services.

VIII. Public Sector Undertakings

1.4.10 Bharat Sanchar Nigam Limited (BSNL)

1.4.10.1 In pursuance of Telecom Policy 1999, the Govt. of India corporatized the service providing functions of Department of Telecommunications (DOT) and transferred and business of providing telecom services in the country to the newly formed company viz Bharat Sanchar Nigam Ltd w.e.f. 1st Oct 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.

1.4.10.2 BSNL is a Public Sector Undertaking with an authorized share capital of Rs.17,500 crore and paid up capital of Rs.12,500 crore comprising of Rs. 5,000 crores of Equity and Rs. 7,500 crores of 9% preference shares It is a technology-oriented company with a mandate of providing all types of telecom services

1.4.10.3 BSNL has largest telecom network in the country. It operates the telecom services in all the circles of the country except Delhi and Mumbai where another Public Sector Undertaking viz MTNL is operating.

1.4.10.4 The objective of BSNL is to provide world-class telecom services ranging from plain telephone service to all types of value added services at affordable prices

1.4.11 Mahanagar Telephone Nigam Limited (MTNL)

1.4.11.1 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 Municipal Corporation and Thane Municipal Corporation.

1.4.11.2 The vision of MTNL is to be a leading integrated player in telecom, diversifying into related businesses in order to expand significantly, keeping customer delight as the aim. The key objectives of the company are:

- To expand the existing customer base and services
- To provide services to the customers based on the latest technology
- To achieve the highest levels of customers' satisfaction.
- To support R&D projects
- To improve productivity by training and redeployment of man power
- To provide better corporate governance.

1.4.11.3. MTNL under a license issued on February 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).

1.4.11.4 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 has licence to operate NLD & ILD services.

1.4.11.5 In the international arena, a wholly owned subsidiary under the name of Mahanagar Telephone Mauritius Ltd. (MTML) has been providing services in Mauritius. It has already rolled out CDMA based fixed and mobile services as well as internet & ILD services.

1.4.11.6 MTNL has also formed a Joint Venture with Software Technology Parks of India (STPI) under Department of Information Technology, Ministry of Communication and Information Technology, New Delhi, with authorized capital of ` 50 crores.

1.4.11.7 Millennium Telecom Limited (MTL), a joint venture company of MTNL & BSNL, is planning to lay its own submarine cable system from both east & west of the country to far South-East Asia & Middle East with an ultimate aim for onward connectivity to Europe and North America.

1.4.11.8 MTNL launched Broadband service based on the state of the art ADSL2+ technology.

1.4.12 ITI Limited

1.4.12.1 ITI 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 Authorized and Paid up Share Capital of the Company is ` 700 Crores and ` 588 Crore respectively as on 31-03-2005. The Registered and Corporate Office of the Company is situated at Bangalore. 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 and Mankapur. In addition Network Systems unit with headquarters at Bangalore provides value-added services like Radio Paging, VSAT, etc. and there are 10 Regional Offices. It offers a complete range of telecom products covering the whole spectrum of Switching, Transmission, and Access and Subscriber Premises equipment. In tune with the technology trend, it has embarked on the manufacture of GSM and CDMA infrastructure equipment.

1.4.12.2 The strength of ITI lies in the strategic area of communications for Defence and the same has been epitomized by the prestigious ASCON project. 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.

1.4.12.3 Major Customers of ITI products are BSNL 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 continue its exports efforts in Afghanistan, Africa and SAARC countries.

1.4.13 Telecommunications Consultants India Limited (TCIL)

1.4.13.1 On 10th 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. The Company is establishing itself in the changed Telecom & IT

Scenario and has diversified into Information & Technology and Civil construction sector.

1.4.13.2 The vision of TCIL is "To excel in providing solutions in ICT, Power and Civil Infrastructure Sectors globally by anticipating opportunity in technology".

1.4.13.3 TCIL works towards the following objectives:

- To provide world-class technology and Indian expertise globally in all fields of telecommunications and information technology
- To sustain, expand and excel in its operations in Overseas/Indian Markets by developing proper marketing strategies.
- To acquire State-of-the-Art technology on a continuous basis and maintain leadership.
- To diversify into Cyber Parks, Cyber Cities, Intelligent Buildings, Highways and Roads and other Civil Works.
- Entering areas of cost-effective network technologies for building new Telecom & IT networks and upgrading legacy networks.
- Focusing on Broadband Multimedia Convergent Service Networks.
- Entering into new areas of IT as system integrator in Telecom billing, Customer Care, Value added services, e-Governance networks and the like.
- Aggressively promoting O & M contracts abroad in the IT and Telecom fields by utilizing TCIL's expert technical manpower.
- Developing Telecom & IT training infrastructure in countries abroad.
- Aggressively participating in SWAN Projects in various states.

1.4.13.4 Core Competence

1.4.13.4.1 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, and 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 intelligent buildings, cyber parks, roads etc.

1.4.13.4.2 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. and operation of WLL (Wireless in Local Loop) system based basic services in Nepal, through a JV with MTNL, VSNL and a Nepalese partner. The company is currently working on contracts secured in Sudan, Saudi Arabia, Mauritius, Kuwait, Oman, Ethiopia and UAE etc. TCIL is also working on Pan-Africa e-Medicine and e-Education for 53 African countries.

1.4.14 Bharat Broadband Network Limited

1.4.14.1 Bharat Broadband Network Limited has been incorporated on 25-02-2012 as a Special Purpose Vehicle (SPV) for the execution of National Optical Fibre Network (NOFN) project. The NOFN has been planned to connect all the 2,50,000 Gram Panchayats in the country through optical fibre cable utilizing the existing fibres of PSUs such as BSNL, RailTel and Power Grid and laying incremental fibre wherever necessary.

CHAPTER – II
Outcome Budget 2013-14

The Outcome Budget 2013-14 has been prepared for the schemes/programmes coming under Plan. The Outcome Budget 2013-14 prepared for the Department of Telecommunication includes the following:

2.1 Rural Telephony (Universal Service Obligation Fund)

Telecom development in rural areas assumes special significance as more than 70% of India's population lives in villages. There is a strong two-way co-relation between telecom development and overall economic development of a region. Telecom services are important drivers for development, delivery of public services such as education, health etc. and integration of rural areas with the rest of the country. Recognizing this, Government had announced the Universal Service Support Policy on 27th March 2002 under which a separate fund for providing access to telegraph services to people in the rural and remote areas was set up. The resources for implementation of USO are raised through a Universal Service Levy (USL) which has presently been fixed at 5% of the Adjusted Gross Revenue (AGR) of all telecom service providers except the pure value added service providers like, Voice Mail, email service providers etc. The activities being undertaken by Department of Telecom under USO are geared towards augmenting the infrastructure and increasing telecom coverage in the rural and remote areas.

Initially the thrust of the activities under taken by USO Fund was on providing public access to rural and remote areas which included operation & maintenance expenses towards Village Public Telephones (VPTs), support for provision of new VPTs in uncovered villages and for Rural Community Phones (RCPs). Subsequently the individual telephones (RDELs) were also provided subsidy support from USO Fund. To broaden the scope of USOF and to include mobile services, broadband, general infrastructure and pilot projects for induction of new technological developments in its ambit, Indian Telegraph Rules were amended on 17-11-2006 to enable support for providing various telecom services in the rural and remote areas of the country. With the amendment to Indian Telegraph Rules & Act in 2006, USOF has been enabled to launch a number of new schemes for rural telecommunications.

A. Public Access.

(I) Village Public Telephones

As on 31.12.2012, 5,81,572 villages i.e. 97.97% of the Census 2001 inhabited revenue villages have been covered with Village Public Telephones (VPTs) with subsidy support from USO Fund.

BSNL has submitted that VPTs are likely to be provided in remaining inhabited revenue villages in the year 2013 through on-going USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

USOF Scheme for VPTs in newly identified uncovered villages as per Census 2001:

Reconciliation of the VPTs working in the inhabited villages as per Census 2001 was carried out taking into account the existing VPT and those provided under Bharat Nirman. All the remaining 62,443 inhabited villages as on 01.10.2007 as per Census 2001 irrespective of criteria of population, remoteness, accessibility and law & order situations have been included for provision of VPTs with subsidy support from USO Fund under this scheme. Agreements in this regard were signed with BSNL on 27.02.2009. As per the terms and conditions of the agreement the VPTs installed between the periods 01.10.2007 to 26.02.2009 are also eligible for subsidy support.

The targets of the scheme are being reconciled considering the left out villages of VPT Schemes of Bharat Norman-I and MARR replacement, additional VPTs already approved by USOF and VPTs already dropped by USOF. BSNL has been asked to furnish the details in this respect.

BSNL has provided 51,074 VPTs under the scheme till 31.12.2012. As per MIS of BSNL, 3425 villages have been provided with VPTs facility by Private Service Providers.

(II) Provisioning of VPTs under Bharat Nirman-I

Agreements were signed with BSNL in November 2004 to provide subsidy support for provision of VPTs in 62,302 uncovered villages in the country excluding those villages having population less than 100, those lying in deep forests and those affected with insurgency.

The provision of VPTs in these villages has been included as one of activities under Bharat Nirman Programme. 62,101 VPTs have been provided under this scheme till the closure of rollout period on 31.08.2012. As per MIS of BSNL 62135 VPTs have been provided till 31.12.2012.

Remaining villages of the scheme would be provided with VPT facility under USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

(III) Replacement of MARR based VPTs (MARR-A & MARR-B)

Agreements were signed with M/s BSNL in the year 2003 for replacement of 1,85,121 number of VPTs with reliable technologies, which were earlier working on Multi Access Radio Relay (MARR) technology and installed before 01.04.2002. These included 47,075 MARR VPTs already replaced before 30.06.2003 (MARR-B) and 1,38,046 MARR VPTs to be replaced from 01.07.2003 onwards (MARR-A).

A total number of 1,84,794 MARR VPTs (99.83%) have been replaced till the closure of the scheme on 30.06.2012. Remaining villages of the scheme would be provided with VPT facility under USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

(IV) Provision of Rural Community Phones (RCPs)

Agreements were signed on 30.09.2004 for providing 40,694 Rural Community Phones (RCPs) [BSNL: 21,958, RIL: 18,736] in villages with population more than 2000 and not having PCO facility. All of these 40694 RCPs have been provided.

B. Shared Infrastructure Support (Towers & Mobile Services)-Phase-1

A scheme has been launched by USO Fund to provide subsidy support for setting up and managing 7,353 infrastructure sites/ towers in 500 districts spread over 27 states for provision of mobile services in the specified rural and remote areas, where there was no existing fixed wireless or mobile coverage. Villages or cluster of villages having population of 2000 or more and not having mobile coverage were taken into consideration for installation of the tower under this scheme.

The agreements effective from 01.06.2007 were signed with the successful bidders in May 2007, which are valid till November, 2013.

As on 31.12.2012, 7,310 towers i.e. about 99.42% have been set up under this scheme. The infrastructure so created is being shared by three service providers for provision of mobile services. As on 31.12.2012, 16,023 BTSs (Base Transceiver Stations) have been commissioned by Service Providers at these towers for provisioning of mobile services.

C. Wireline Broadband Connectivity in Rural and Remote Areas

USOF has signed an Agreement with BSNL on January 20, 2009 under this Scheme which was launched to provide wire-line broadband connectivity to rural & remote areas by leveraging the existing rural exchange infrastructure and copper wire-line network. This scheme is being implemented at pan-India level. The objective is to make the rural and remote areas broadband enabled by facilitating the service providers in creating Broadband infrastructure. The speed of each of the broadband connections shall be at least 512 kbps always on, with the capability to deliver data, voice and video services in the fixed mode. The rural broadband connectivity will cover Institutional Users, such as Gram Panchayats, Higher Secondary Schools and Public Health Centres, as well as Individual Users, and located in the villages.

Under this scheme, BSNL will provide 8,88,832 wire-line Broadband connections to individual users and Government Institutions and will set up 28,672 Kiosks over a period of 5-years, i.e., by 2014. The subsidy disbursement is for (i) broadband connections, Customer Premises Equipment (CPE), Computer/Computing devices (ii) setting up of Kiosks for public access to broadband services. The estimated subsidy outflow is Rs. 1500 crore in 5 years' time that includes subsidy for 9 lakh broadband connections, CPEs, computers/computing devices and Kiosks.

Under this scheme, as of August 2012, a total of 3,91,245 broadband connections have been provided and 10076 kiosks have been setup.

Rural Public Service Terminals (RPST) Scheme

A Memorandum of Understanding (MoU) has been signed with BSNL for subsidy support from USO fund for Provision of Broadband enabled Rural Public Service Terminals (RPSTs) to eligible women's SHGs on pilot basis in the states of HP & Rajasthan. BSNL shall provide an RPST to one eligible SHG from each of its eligible rural wire-line exchanges under the MoU on agreed terms and conditions with subsidy support from USO Fund. The RPST shall be capable of providing value-added services (VAS) as under:

(i) Banking services such as cash withdrawals and remittances whereby the RPST franchisee acts as a banking

(ii) Facilitation of Government disbursements/transactions (NREGA, Pension, PDS etc.)

(iii) Railway, airline and bus ticketing, mobile top-ups, utility bill payments, etc. which will generate additional revenue for the SHG

(iv) Retailing airtime (PCO services)

(v) Retailing of life, general and micro insurance services such as crop, cattle, health and home insurance.

At present 150 RPSTs (100 in Rajasthan and 50 in HP have been provided under this scheme.

D. Pilot Projects

Solar Mobile Charging Facilities

TERI project for Solar Mobile Charging Stations: An Agreement was signed with TERI in April 2010 for providing mobile charging stations in 5000 villages. Mobile charging stations have been established in 1900 villages by TERI till the expiry of the agreement in April 2012.

E. General Infrastructure Augmentation - Optical Fibre Network Augmentation, Creation and Management of Intra-District SDHQ-DHQ OFC Network

The Indian Telegraph Rules have been amended, to add Stream-V which enables USOF to provide support for creation of general infrastructure in rural and remote areas for the development of telecommunication facilities.

USOF has signed MoU with TCIL for assistance in the OFC Network Augmentation for all the Service Areas/States in a phased manner

Optical Fibre Network Augmentation, Creation and Management of Intra- District SDHQ-DHQ OFC Network in service area of Assam:

This Scheme has been launched to provide sufficient back-haul capacity to integrate the voice and data traffic from the access network in the rural areas to their core network by

strengthening the OFC network. This scheme considers OFC Network augmentation between the blocks' HQ and Districts' HQ to begin with.

USOF, through this Scheme, shall provide subsidy support for augmentation, creation and management of intra-district SDHQ-DHQ OFC Network on the condition that it will be shared with other Telecom Operators at the rates prescribed in the Agreement. Assam has been taken up first for implementation. The tender for Assam was floated on 30.10.2009 and BSNL had been declared successful at the subsidy quote of ` 98.89 crore and subsequently, an Agreement has been signed with BSNL on 12.02.2010 to implement the scheme in Assam.

Salient Features of the Scheme: This OFC Scheme would be undertaken on BOO model, i.e. build, operate & own basis, and accordingly, BSNL would build, operate, own and manage all the equipment/infrastructure for the provisioned intra-district augmented/created OFC Transport network to connect 354 total locations in Assam in total 27 Districts.

All locations are to be connected on physical OFC Ring Route(s) with the DHQ node ensuring the cable route diversity and ring capacity of at least 2.5 Gbps, in all districts of ASSAM within 18 months from the date of signing of the Agreement. The Agreement shall be valid for a period of seven years from the effective date.

At least 70% of the subsidized bandwidth capacity, created under the scheme, shall be shared with the licensed service providers in the area of ASSAM at a rate not more than 26.22% of the current TRAI ceiling tariffs.

As of December 2012, about 260 nodes have been installed (Out of 354) under the current scheme.

F. National Optical Fibre Network

The optical fibre presently has predominantly reached state capitals, Districts and blocks and there is plan to connect all the 2,50,000 Gram Panchayats in the country through optical fibre utilizing existing fibres of PSUs viz. BSNL, RailTel and Power Grid and laying incremental fibre wherever necessary. Size of the incremental network is Approx. 0.5 million km. Dark fibre network thus created will be lit by appropriate technology thus creating sufficient bandwidth at GPs level. This will be called National Optical Fibre Network (NOFN). Thus prevailing connectivity gap between GPs and Blocks/Districts will be filled. Non-discriminatory access to the network will be provided to all the telecom service providers. Further the broadband connectivity to 2.5 lakh GPs for various applications like e-health, e-education and e-governance etc. will be provided by NOFN as closed user group. The network is proposed to be completed in 2 years' time. The project is being funded by Universal Service Obligation Fund (USOF). The project is being executed by a Special Purpose Vehicle (SPV) Bharat Broadband Network Limited which is a company incorporated under Indian Companies Act 1956 and initially will be fully owned by Central Government, with equity participation from Government and interested Central Public Sector Units (CPSUs) (BSNL, RailTel, Power Grid, GAILTEL, etc.). Tripartite MoU for free Right of way (RoW) have been signed with 13 States and 3 UTs on 26.10.2012. The work of NOFN has been distributed among 3 CPSUs viz BSNL, RailTel and PGCIL. The 3 CPSUs have

already started the field survey. Tenders for material and work are in progress and work is likely to commence shortly.

The network proposed, under the scheme, is to be completed in 2 years' time.

F. New/ Forthcoming Schemes

(a) Optical Fibre Network Augmentation, Creation and Management of Intra-District SDHQ-DHQ OFC Network in service area of NE-I and NE-II

The scheme has been launched in NE-I and NE-II service areas. Tenders have been floated and M/s RailTel Corporation has been selected as success bidder at a subsidy quote of ` 89.50 Cr. and ` 298.50 Cr. respectively. The agreements have been signed on 16.01.2012. The schemes have a roll out period of 24 months and 30 months respectively. The roll out is yet to start.

(b) Scheme for Mobile Communication Services in Left Wing Extremism (LWE) affected Areas

Ministry of Home Affairs (MHA) has identified and conveyed 2199 locations to DoT in 9 states which are affected by Left Wing Extremism (LWE) and do not currently have any coverage by any service provider. 227 locations have been identified in Andhra Pradesh for provision of mobile services under the scheme.

Mobile services shall be available for general public as well as security personnel around these locations.

Proposal to nominate BSNL for execution of the scheme is under consideration.

(c) Scheme for Mobile Communication Services in Uncovered Villages

A scheme is being envisaged to extend financial support for provisioning of mobile communication services in about 57,000 uncovered villages of the country. The scheme envisages use of renewable energy resources (solar/wind/hybrid etc.) for powering of sites, wherever feasible.

USOF has signed an MOU with C-DOT on 1st November, 2012 for preparation of mobile network to be used for benchmarking of USOF subsidy. USOF will undertake further activities after submission of report by C-DOT, which is expected by 31st Jan 2013. Benchmarking, financial approvals, tendering and award of work will take about 12 months.

(d) Rural Wireless Broadband Scheme – Phase - I

The USOF is working on a scheme for providing financial assistance by way of subsidy for the wireless broadband active infrastructure such as BTS, by utilizing the existing infrastructure available with the Telecom service providers. This scheme is being implemented at pan-India level.

This scheme would provide broadband coverage to about 5 lakh villages at a speed of 512 kbps. With the completion of the BWA and 3G Spectrum auction, the stage is set for the launch of the scheme. The draft tender has been put in public domain for comments from stakeholders. The comments have been received and are under examination.

The scheme has been put on hold due to conflict with rural roll out obligation of successful 3G/BWA bidders of spectrum auction in May 2010.

(e) Satellite Broadband connectivity for Rural & Remote Areas

- For provision of BB connectivity to 5000 identified villages which do not have any terrestrial connectivity.
- Initially, 1200 villages as a pilot are envisaged to be provided broadband on this media @ 512 kbps.
- The technical consultant "C-DoT" submitted its report and the formulation of the scheme, is in progress.
- The Scheme was to be rolled out during the Five Year Plan (2007- 2012) with a subsidy outlay of about Rs.30 crore.
- The subsidy for broadband connections would be distributed in the form of 12 Equated Quarterly Annual instalments, as follows:

❖ Greenfield Institution with SPV backup: EQA ` 43,476.00

❖ Greenfield Institution with UPS: EQA ` 36,048.00

❖ Brownfield Institution with SPV backup: EQA ` 36,776.00

❖ Brownfield Institution with UPS: EQA ` 28,818.00

❖ Institutional Brownfield connections without any power solution: ` 27,934.00

❖ The district-wise subsidy, on an average, for Kiosks is as follows:

❖ Brownfield Kiosk with UPS:

❖ Maximum (Pakur in Jharkhand and Senapati in Manipur): ` 33,837.00

❖ Minimum (Few districts of Kerala and TN): ` 28,935.00

❖ Brownfield Kiosk with solar power:

❖ Maximum (Pakur in Jharkhand and Senapati in Manipur): ` 41,265.00

❖ Minimum (Few districts of Kerala and TN): ` 35,287.00

❖ Greenfield Kiosk with solar power:

❖ Maximum (Pakur in Jharkhand and Senapati in Manipur): ` 45,398.00

❖ Minimum (Few districts of Kerala and TN): ` 38,821.00

❖ Greenfield Kiosk with UPS:

- ❖ Maximum (Pakur in Jharkhand and Senapati in Manipur): ` 37,970.00
- ❖ Minimum (Few districts of Kerala and TN): ` 32,469.00

BE 2013-14

In view of the above mentioned ongoing and new activities, USOF has projected an amount of ` 15804 crore in the Budget Estimate (BE) for the year 2013-14. In BE 2013-14 the major component of funds i.e. ` 13645 crore has been proposed for the scheme for creation of National Optical Fibre Network (NOFN) for Broadband connectivity to 2.50 lakh Village Panchayats of the Country. It is expected that in the financial year 2013-14, USOF activities would progress considerably and bring about a resultant positive impact on rural connectivity, teledensity and socio-economic progress.

2.2 Telecom Engineering Centre (TEC)

Telecom Engineering Centre, as a part of DoT, Government of India, has its headquarters at New Delhi. The TEC is responsible for the standardization and development of generic requirement, interface requirements for Telecom Equipment services and products. It is also responsible for new telecom technology study, trials, evolution and induction in the network. A sum of ` 12.50 crore has been provided under the plan 2013-14 for the setting up of NGN Lab for testing and certification of transport equipment under NGN test bed and Outcome Budget[11] has been prepared for the same.

2.3 Wireless Planning & Coordination (WPC)

The approved plan outlay of Wireless Planning and Coordination Wing for the year 2013-14 is ` 1.50 crore. WPC, as part of the Telecom Sector Reform Technical Assistance Project, has implemented National Radio Spectrum Management and Monitoring System (NRSMMS). This project strives to improve the utilization of Radio Frequency Spectrum, which is a scarce national resource and essential for modern telecommunication services. Under this project, spectrum management and monitoring functions have been automated with a view to making spectrum management process more transparent, effective and efficient. The Outcome Budget[12] of WPC relates to the residual payments and the AMC being undertaken under this project.

2.4 Wireless Monitoring Organization (WMO)

[11] Refer Annexure-B
[12] Refer Annexure-C

The approved Plan Outlay for Wireless Monitoring Organization is ` 50.00 crore for the year 2013-14 and the Outcome Budget[13] relates to the outlay. The funds would be utilized mainly for the establishment of 6 additional Wireless Monitoring Stations (WMSs) at Bhubaneswar, Dehradun, Lucknow, Patna, Raipur & Vijayawada, augmentation of training facilities, upgradation of Microwave Monitoring Terminals, procurement of SHF monitoring facilities and civil works.

[13] Refer Annexure-D

2.5 Centre for Development of Telematics (C-DOT)

Centre for Development of Telematics (C-DOT) is the Telecom Research and Development Centre of the Government of India. It is an autonomous scientific society which develops total telecom solution technologies and applications for the fixed line, mobile and packet based converged network and services. C-DOT's current focus is on design and development of Communication & Security, Research and Monitoring related to security management for law-enforcement agencies, the development and deployment of next generation networks and cost effective rural wireless solutions. A plan outlay of ` 310.00 crore has been approved for C-DOT during 2013-14 with ` 250.00 crore as budgetary support and ` 60.00 crore from the internal resources (IEBR) of C-DOT. The projects to be undertaken by C-DOT during 2013-14, which are part of the Outcome Budget[14] comprise of security related projects, development of technology for rural areas, technologies for the NE Region, broadband technologies and Strategic and Enterprise solutions etc.

2.6 Telecom Regulatory Authority of India (TRAI)

A sum of ` 22.00 crore has been provided under Plan for the telecom regulatory authority. The quantifiable deliverables/physical outputs related to TRAI are related to the various proposed studies/consultancies to be undertaken by TRAI and on the training to TRAI officials on technical and regulatory issues. The Outcome Budget[15] for TRAI pertains to the above parameters.

2.7 Telecom Disputes Settlement and Appellate Tribunal (TDSAT)

A sum of ` 1.50 crore has been provided under Plan to TDSAT. The funds would be utilized for up-gradation of reference library, holding of seminars on telecom disputes and settlement, study tour for familiarization with telecom regulatory environment/training. The Outcome Budget of TDSAT, therefore, relates to the above facilities.

2.8 Bharat Sanchar Nigam Limited (BSNL)

Bharat Sanchar Nigam Ltd. (BSNL) has an approved Plan Outlay of ` 5593.00 crore from IEBR without GBS for the year 2013-14. The funds would be utilized for the provision of telecom services, internet & broadband facilities amongst other programmes given in the Outcome Budget[16].

2.9 Mahanagar Telephone Nigam Limited (MTNL)

The approved plan outlay of MTNL for the year 2013-14 is ` 786.93 crore with no budgetary support. The resources would be generated by the company through its internal and

[14] Refer Annexure-E
[15] Refer Annexure-F
[16] Refer Annexure-H

extra budgetary resources. The outcome targets as given in the Outcome Budget[17] of MTNL mainly relate to increase in the net switching capacity, IT related services and to support Expansion in New Services Areas abroad and national acquisitions.

2.10 ITI Limited

ITI Limited has been provided a token sum of ` 0.01 crore as budgetary support under plan for 2013-14[18].

2.11 DoT Projects

The total budgetary support of ` 5800.00 crores includes provision for the following projects and the Outcome Budget[19] has been prepared accordingly.

(a) Technology Development & Investment Promotion (TDIP): The Government has to play an important role in promoting investment in the telecom sector including manufacturing and export of telecom equipments and services. Technology Development & Investment Promotion (TDIP) scheme is a scheme to fund activities related to technology development like R&D and IPR generation and also for promoting manufacturing and export of telecom equipment and services. For meeting the requirements of funds for various promotional schemes like grant in aid to Telecom Centres of Excellence, national and international participation in exhibitions and to promote export, assistance is provided for following activities:

(i) Grant-in-aid to seven Telecom Centers of Excellence (TCOE) set up in PPP mode by DOT.
(ii) Promotion and development of manufacturing and export in telecom sector.
(iii) Promotion of telecom sector through conferences and exhibitions in India and abroad.
(iv) Any activity related with technology development and investment promotion.

An amount of ` 1.50 crore has been allotted for this purpose for the year 2013-14.

(b) OFC based network for Defence Services (DS): Cabinet Committee on Infrastructure (CCI) in its meeting held on 3rd December 2009 approved the alternate communication network for Defence services for release of spectrum.

The project is meant for building an exclusive dedicated alternate communication network for Defence Services in order for them to vacate the occupied frequency spectrum to be used for the next generation of mobile telephony and telephony has become inadequate due to the

[17] Refer Annexure-I
[18] Refer Annexure-J
[19] Refer Annexure-K

increasing demand of mobile services in the country. The work for Air Force network was started in 2006 and the network for Air Force has been dedicated to the nation by Air Force on 14.09.2010. The Army and Navy component of the network comprising of 219 and 33 sites respectively throughout the country has been started in 2010-11. As regards the laying for Army, Navy and the backbone network, BSNL had floated the tender. While estimated cost of OFC was ` 2000 crore the tender cost came around ` 7500 crores. The issues of revision of cost for the project are being settled. The components of these networks are DWDM equipments, IP-MPLS Routers, Carrier Ethernet based Router and Switches, IMS Equipments along with Network Operating Centres (NOC), Data Centres, Network Management Systems (NMS), Security and Synchronization devices along with back up media on Microwave & Satellite for some strategic locations. The time line for implementation of the project is three years. An amount of ` 2425.00 crore has been provided in BE 2013-14 for Army and Navy network part of the project.

(c) National Institute of Communication Finance

(i) Human Resource Management for IP&TAFS

- **Mid Career Training (MCT):** A five stage MCT programme for IP&TAFS officers has been conceived by the National Institute of Communication Finance (NICF) in pursuance of the National Training Policy of the Department of Personnel & Training. A provision of ` 8.00 crore has been made in BE 2013-14. The endeavour would be to equip the officers to handle conflicting interests and demands and to interface effectively with policy makers. An intensive exposure to the best practices in the international arena would be provided at every stage.

  It is also proposed to introduce Mid-Career Training at suitable intervals for Group "B" and "C" of IP&TAFS from 2013-14 which would help in preparing them for next level competency expected on career progression and would aim at imparting right skill, knowledge and attitude at various stages of their career.

- **Induction and Inservice Course:** In pursuance of the National Training Policy frame work the NICF is imparting (a) Induction Training at the time of entry into service in respect of IP&TAFS officers at the time of their induction through Civil Services Exams; and (b) Inservice training at suitable intervals to all categories of IP&TAFS cadres including Group "B" & "C". The inservice training programmes will be specifically designed in consultation with other partner institutions/consultants/experts to meet the requirements of the target groups. An amount of ` 3.00 crore has been provisioned in BE 2013-14 for this purpose.

- **Institutional and Capacity Development Initiatives:** Keeping in view the decision of the Government of India in accordance with 2nd Administrative Reforms Commission and 6th Central Pay Commission to move towards a competency based

human resource development/management frame work there is proposal to re-orient/strengthen the human resource management and development processes of IP&TAFS. A series of projects are proposed to be undertaken for this purpose. Some of them are (a) Development and piloting new capacity development initiatives in communication sector; (b) Standardization processes, bench marking and quality certification of IP&TAFS officers (c) Setting up of e-learning system etc. An amount of ` 1.00 crore has been allocated for this purpose in BE 2013-14.

(ii) Physical Infrastructure for National Institute for Communication Finance (NICF):

A separate premises and campus with state-of-the-art training and residential facilities for NICF at Ghitorni, New Delhi has been envisaged for the Twelfth Five Year Plan. Foundation stone for the institute has already been laid by Hon'ble MOC&IT. Pre-project activities like preparation of DPR, Repair of boundary wall and approach road etc. are going. It is proposed to start initial construction work in the NICF campus at Ghitorni New Delhi during 2012-13. A provision of ` 23.99 crore has been made for this purpose during 2013-14.

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes/ Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	**Plan Budget**	**Complementary Extra-Budgetary Resources**				
1	VPT Opex	Operation and Maintenance of VPTs							See Note 1
2	Replacement of MARR VPTs	Replacement of MARR VPTs with reliable technology and maintenance thereof.							See Note 2
3	Provision of RCPs	Installation of Rural Community Phones in villages with population exceeding 2000, without having any PCOs and maintenance thereof.							See Note 3

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes/ Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
4	VPTs in Uncovered Villages as per census 1991	Installation of VPTs in uncovered villages as per Census 1991, excluding villages with population less than 100 or lying in Naxalite areas/forests etc.							See Note 4
5	Rural Household DELs installed between 1/04/02 and 31/03/2005	Maintenance of RDELs installed between 01/04/02 and 31/03/05.							See Note -5
6	RDELs installed between 01.04.05 and 31.03.07 and (extended up to 31.3.2010)	Maintenance of RDELs installed between 1/04/07 and 31/03/2010.							See Note -6

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes / Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
7	Mobile phase –I	Setting up and managing 7353 infrastructure sites and provision of mobile services in rural and remote areas.							EQA payable for towers already installed (See Note 7)
8	VPTs in newly identified Uncovered Villages as per Census 2001	Installation of VPTs in newly identified Uncovered Villages as per Census 2001							Rollout of the scheme is likely to be completed within the current financial year. However, remaining VPTs if left any may be provided in F/Y 2013-14. (See note -8)

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes / Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
9	Solar Mobile Charging Stations	Financial Support for mobile charging stations in 5000 villages through TERI project of Lighting a Billion Lives (LaBL).							(See note -9)
10	Wireline Broadband Connectivity in rural and remote areas.	Total 888832 BB connections and 28672 Kiosks				279857 BB connections & 9309 Kiosks	279857 BB connections & 9309 Kiosks	Jan. 2014	Dependent on the demand of the broadband connectivity in the rural and remote areas. (See note -10)
11	Optical Fibre Cable (OFC) Network in Assam service area.	OFC Network Augmentation between SDHQ/DHQ in Assam.				Complete Assam , 69 OFC Nodes	Complete Assam , 69 OFC Nodes	Mar. 2014	OFC laying depends on Right of Way (RoW) permission from state government. (See Note 11)

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes / Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
12	National Optical Fibre Network for broadband connectivity to Panchayats (NOFN)	For providing broadband connectivity to 2,50,000 village Gram Panchayats in the country through extending existing optical fibre network.		2500.00				Within a time frame of two years	(See Note 12)
13	Sanchar Shakti	For provision of mobile Value Added Services to rural women's SHGs for a period of one year							(See Note 13)
14	Augmentation, creation & management of OFC Network in NE-I & NE-II (earlier titled for Sas other than ASSAM)	OFC Network Augmentation between SDHQ & DHQ in NE-I & NE-II				595 Nodes (188 in NE -1 & 407 in NE -II)	335 Nodes (135 in NE -1 & 200 in NE -II)	Mar. 2014	Rollout yet to start, OFC laying depends on RoW permission from State Governments.

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes / Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
15	Providing Mobile Connectivity in left wing extremism affected area which are not covered by any service provider	Provision of Mobile Services in about 2199 locations of LWE affected areas as identified Ministry of Home Affairs							Scheme is under consideration
16	Scheme for Mobile Services in Uncovered Villages.	Provision of Mobile Services in about 57000 uncovered inhabited villages of the country.							Scheme is under consideration
17	Support for Rural Wireline Household DELs installed prior to 01.04.2002	Ensuring operational sustainability of Rural wireline Household DELs installed prior to 01-04-2002							A subsidy support of Rs. 1500 crore to BSNL for the year 2011-12 for sustainability of wire line connections provided to April. 2002 is under consideration.

Annexure-A

UNIVERSAL SERVICE OBLIGATION FUND
OUTCOME BUDGET 2013-14

(` in Crore)

Sl. No.	Name of the Scheme/ Programme	Objective/Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Output	Projected Outcome	Processes / Timelines	Remarks/ Risk factors
1	2	3	4			5	6	7	8
			4 (i)	4(ii)	4(iii)				
			Non Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
18	Augmentation, creation & management of OFC Network in West Bengal & Sikkim	OFC Network Augmentation between SDHQ & DHQ in WB & Sikkim		500.00*		Nil	Nil		Scheme yet to be launched
19	Wireless Broadband Connectivity in rural and remote areas	5.0 Lakh villages				Nil	Nil		Scheme on hold due to conflict with rural roll out obligation of 3G/BWA bidders. be launched
20	Satellite Rural Broadband Connectivity in rural & remote areas	600 Satellite BB Connections				Nil	Nil		Scheme yet to be launched
Total				**3000.00**					

* In 2013-14, allocation of ` 2500 crore has been provided for "National Optical Fibre Network [NOFN]" (Sl.No.12) and ` 500 crore for Ongoing Schemes of USOF

1. Subsidy claims are received and disbursed in arrears after completion of the quarter in which the facilities are provided and/or remained operational.
2. The financial outlay figures are estimated and subject to actual disbursement in arrears, based on timely submission of claims by USPs and number of facilities actually provided and/or working.

Notes:
1. VPT OPEX: Financial outlay has been proposed for settlement of spill over.

2. MARR VPTs: Originally 1,86,872 MARR VPTs were to be replaced and the same was revised to 1,82,766 in Aug, 2007 and again to 1,85,121 (47075+138046) by BSNL in October 2008. Remaining villages are to be covered with VPTs facility under scheme for VPTs in the identified uncovered villages as per census 2001. Financial outlay has been proposed for settlement of spill over.

3. RCP: Agreements were signed on 30.09.2004 for providing 40,694 Rural Community Phones (RCPs) [BSNL: 21,958, RIL: 18,736] in villages with population more than 2000 and not having PCO facility. Financial outlay has been proposed for settlement of spill over.

4. VPTs in UNCOVERED VILLAGES as per census 1991: Originally 66822 VPTs were to be provided under the scheme and the same was revised to 62302 by BSNL(reduced by 4520). Remaining villages are to be covered with VPTs facility under scheme for VPTs in the identified uncovered villages as per census 2001. Financial outlay has been proposed for settlement of spill over.

5. RDELs installed between 1.4.02 and 31.3.2005 Financial outlay has been proposed for settlement of spill over.

6. RDELs installed from 1/04/05 to 31/03/07 and (extended up to 31-03-2010) Financial outlay has been proposed for settlement of spill over .
7. Mobile Infrastructure-Phase-I: The total number of towers have been reduced from 7363 to 7353 as a result of dropping/addition of towers as on 31.12.2011 . As on 31-12-2010, 7310 towers have been setup. Rollout of the scheme is likely to be completed within the current financial year. However, remaining towers, if any, may be provided in the financial year 2013-14.
8. Agreements were signed on 27.02.2009 for installation of about 62443 VPTs. The target of the scheme are being reconciled considering the left out villages of VPTs Schemes of Bharat Nirman - 1 and MARR replacement, additional VPTs already approved by USOF and VPTs already dropped by USOF. Details in this respect are awaited from BSNL.

9. SMCF: Agreement for installation of Solar Mobile Charging Stations in 5000 villages in the country was signed with TERI on 29.04.2010. Mobile Charging stations have been established in 1900 villages by TERI till the expiry of the Agreement in April 2012.

10. Wireline Broadband Connectivity in rural and remote areas: An Agreement was entered into with M/s BSNL on 20-01-2009 for provision of Broadband connectivity to individual users and Govt. Institutions in rural and remote areas on wireline media.

11. OFC Assam: Augmentation, creation & management of OFC Network with higher band width to SDHQ/Blocks in Assam.

12. National Optical Fibre Network (NOFN). Plan to connect all the 2,50,000 Gram Panchayats in the country through optical fibre utilizing existing fibre network of PSUs viz. BSNL, RailTel and Power Grid and laying incremental fibre wherever necessary and will be completed in a time period of two years.

13. Sanchar Shakti : To facilitate women's Self Help Groups (SHGs) access to ICT enabled services. Financial support from USO Fund is envisaged to be provided towards mobile VAS subscriptions for SHGs.

Annexure - B

TELECOMMUNICATION ENGINEERING CENTRE
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
1	2	3	4			5	6	7	8
			4(i)	4(ii)	4(iii)				
			Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
A. Core Activities (figures in units)									
1	New Generic Requirements, Interface requirements and Service Requirements	Preparation of new GRs / IRs		…		10			
2	Review of GRs/ IRs	Revision of existing GRs / IRs		…		20			
3	Preparation of Test Schedule/ Test Procedure	Preparation of Test Schedule		…		30			
4	Type Approval			…		No target defined			
5	Interface approvals of customer equipment	Certification to authorise use of equipment in telecom network		…		No target defined			
6	Certificate of approval			…		No target defined			

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TELECOMMUNICATION ENGINEERING CENTRE
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks /Risk Factors
1	2	3	4			5	6	7	8
			4(i)	4(ii)	4(iii)				
			Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
B.	**Project Activities**								
1	N.E. Region	Satellite based Broadband network		1.50	…				
		EMF Measuring Instruments							
2	NGN Labs	To carry out testing and certification of NGN complaint CPEs and terminals	…	0.30	…				
3	Procurement of EMF Measuring Instruments	EMF Testing	…	8.00					
4	SAR Lab	To carry out testing and certification of Mobile equipment about Specific Absorption Rate (SAR)	…	2.70	…				
5	SAR Lab Mumbai	To carry out testing and certification of Mobile equipment about Specific Absorption Rate (SAR)	…		…				
	Total			**12.50**					

Annexure - C

WIRELESS PLANNING CO-ORDINATION
Outcome Budget 2013-14

(` in Crore)

S. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks /Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
1	National Radio Spectrum Management and Monitoring System (NRSMMS)	Supervision of maintenance of facilities procured under NRSMMS project. Follow up of Arbitrator.		1.50		1. Monitoring of maintenance of facilities procured under NRSMMS project to make the system operational. 2. Making of spill over payment, if any due after Arbitrator decision. 3. Up gradation of software for ASMS/ NSMS			
		Total		**1.50**					

Annexure - D

WIRELESS MONITORING ORGANISATION
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
1.	Mobile Monitoring, including Direction Finding, facility	Procurement of: • Vehicle-mounted monitoring terminals ▪ Transportable monitoring (including remote monitoring) terminals ▪ Man-pack monitoring terminals ▪ Vehicle-mounted direction finding terminals ▪ Transportable direction finding terminals ▪ Man-pack direction finding terminals ▪ Airborne mobile monitoring	N/A	34.00	Nil	Procurement of six vehicle-mounted mobile and portable monitoring terminals for the six newly established monitoring stations in the 11th FYP, at an estimated cost of Rs. 28 crore. The bid document for the same is under consideration. (b) Two SHF (microwave terminals), at an estimated cost of Rs.20 crore, out of many, was planned in the FY 2011-12. The draft T.C Memo for the same is under consideration. (c) Transportable Direction Finders, at an estimated cost of Rs. 12 crore under the Scheme called "Mobile	1. To equip new WMSs with monitoring facilities. 2. To augment / enhance monitoring capabilities at existing WMSs.	To be completed in 12th FYP	

		terminals ▪ 100 vehicles (mostly small sized, but some big trucks)				Monitoring, including Direction Finding Facility of the 12th FYP. (d) Special hardware and software are planned for procurement at an estimated cost of Rs. 3 crore. Foreseeing the possibility of non-implementation of the above two proposals at (a) & (b) above, in F.Y. 2012-13 and consequent non-utilization of the allocated plan-budget, WMO has submitted a third proposal, with an estimated expenditure of Rs.48 crore, which is also under consideration.			

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WIRELESS MONITORING ORGANISATION
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
2	**Technical Schemes**								
2.	Fixed Monitoring, including Direction Finding, facility	Procurement of : ▪ Terrestrial fixed monitoring systems ▪ Terrestrial fixed direction finding systems ▪ Satellite monitoring systems	N/A	4.00	Nil	6 Nos. Fixed HF Monitoring facilities for six new WMSs established under 11th FYP	To address monitoring of transmissions in HF and lower bands as well as satellite emissions	Current FY	
3	Type approval, testing, calibration and maintenance facility	To procure hardware & software for Type approval testing	N/A	Nil	Nil	Procurement of hardware & software	To facilitate Type approval, testing , calibration and maintenance of monitoring equipments	To be completed within 12th FYP	

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WIRELESS MONITORING ORGANISATION
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
4	Specialised hardware/ software and auxiliary components	To procure specialised hardware/ software and auxiliary components to enhance monitoring capabilities	N/A	Nil	Nil	Procurement of specialised hardware/ software and auxiliary components	To enhance monitoring capabilities of special transmissions	To be completed in 12th FYP	
5	Training and Development facility	To procure technical hardware and software	N/A	Nil	Nil	Procurement of technical hardware and software	To develop training facilities.	To be completed in 12th FYP	

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WIRELESS MONITORING ORGANISATION
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables / Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
6	**Manpower requirement**	▪ Manning of Training and Development Centre ▪ Manning of six new WMSs created in 12th Five Year Plan ▪ Manning of microwave monitoring terminals ▪ Manning of Satellite Monitoring facility ▪ Manning of Type approval, testing, calibration and maintenance facility ▪ Manning of Project Implementation Unit	N/A		Nil	Creation of Project Implementa-tion Unit.	To facilitate speedy implementation of Plan schemes under 12th FYP. Creation of posts under various 12th FYP schemes.	To be completed in 12th FYP	

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WIRELESS MONITORING ORGANISATION
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
	Total (A) Technical Schemes		N/A	**38.00**	Nil	N/A	N/A		
7	**Civil Schemes Civil Works Total (B)**	Miscellaneous Civil works such as procurement of land, construction of office buildings, staff quarters & ancillaries.	N/A	**12.00**	Nil	Procurement of land & civil construction works at Dibrugarh, Lucknow, Patna, Vijayawada, Jammu, Jalandhar, Silliguri, Mangalore, Jalna, Goa, Mumbai, Delhi etc.	Housing of Monitoring establishments and staff in their own building	Execution of ongoing/ sanctioned civil construction works within 12th FYP	Subject to (i) availability of land with State Govts/BSNL, & dependency on construction work by CPWD/BSNL on time(ii) administrative approval & financial concurrence of the competent authority.
	G. Total (A) + (B)		N/A	**50.00**	Nil				

Annexure - E

CENTRE FOR DEVELOPMENT OF TELEMATICS
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
1	Communication Security & Research Monitoring (CMS)	Research & Development for security management for Law Enforcement Agencies.		125.32		Centralized Monitoring System (CMS) - Implementation & Roll-out in the field.	•Installation & integration of 7 ILDs, RMCs, & their TSPs for 12 LSAs • CMS software support in the fields	Progressive CMS implementation & pan India roll-out	Major aspects of CMS have already been developed . In 2013-14, the focus will be to complete the remaining Research & development.
2	Broadband Technologies	Design, Development of a high capacity (terabit) router technology , technology trials etc.		26.23		Terabit Router	•Design completion multi-terabit router. •1U redundant units supporting 300 Gbps (full duplex) throughput & pilot deployment in	Pilot trial of fault tolerant multi-terabit router.	During this year, the focus will be to commence Pilot trial of fault tolerant multi-terabit router study & specification finalization as per the requirements of prospective security agencies.

							the field.		

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Annexure - E

CENTRE FOR DEVELOPMENT OF TELEMATICS
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
3	CAMPUS INFRASTRUCTURE	Construction of residential facilities for CDOT within the Delhi campus area, to facilitate flexible working hours conducive for R&D culture.		3.00		Construction of dwelling & Hostel facilities for C-DOT staff & Project Board	Finalization of tender, invitation of tender bids, award of work for residential complex	Finalization of tender, invitation of tender bids, award of work	Commencement of construction activity is subject to obtaining statutory approvals (being awaited)
4	Enhancements / New Features / upgradation / adaptation / technical support for developed technologies	To focus on Research & Development efforts on enhancements, upgrade, update, evolution, feature addition, scalability, value addition and customization of developed technologies to meet changing requirements.		35.00		Enhancement / Upgradation / support for : Shared GSM Radio, MAX-NG / NGN, ATM Support, NMS Support, Software intensive applications, etc.	Technical support for field deployments various technologies e.g. migration fixed-line to next generation, GPON, BBWT, NMS etc.	Enhancements / New Features / upgradation / adaptation / technical support for developed technologies	This scheme focuses on development for enhancements like evolution / migration, feature addition, scalability etc. and support activities like trials, software /& hardware patches / solutions for technologies developed / deployed.

Annexure - E

CENTRE FOR DEVELOPMENT OF TELEMATICS
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
5	NEXT GENERATION MOBILE TECHNOLOGY	To focus on Research & Development efforts on emerging Wireless Technologies for broadband & Adhoc Mesh Networks - 4G Technology requirements.		44.09		Development of 4G Wireless Systems : 4G Lab test-bed	Prototype Femto eNodeB system for LTE.	Integration & testing of Femto system with EPC from other vendors.	LTE-A (Advanced), is 4G technology complying with the ITU-R standard. During the FY 2013-14, the focus will on Implementation of NMS for LTE Femto networks.
6	Carrier networks' transport technology	To focus on Research and Development efforts on optical technology related products viz. XGPON-1/2, WDM-PON, DWDM.		27.33		Next Generation PON - 10G-GPON (NG-PON, optical core networks)	•Bhawan Damini with optical interfaces. •IEEE 1588-compliant CPE (ONT9). •Demonstration of services over 10G-GPON.	Demonstration of services over 10G-GPON.	During the financial year 2013-14, A new project "Optical core networks" will be taken up in addition to continued development of 10G-GPON.

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Annexure - E

CENTRE FOR DEVELOPMENT OF TELEMATICS
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
7	SECURE WIRELESS & WIRE-LINE NETWORKS	To focus on Research and development for WiPS based GSM technologies like EDGE & 3G, pan India implementation for fixed-line Secure & Dedicated Communication Network (SDCN) etc.		32.33		Development for a secure Mobile Communication Network namely WiPS based GSM technologies like EDGE & 3G, pan India implementation for fixed-line Secure & Dedicated Communication Network (SDCN) etc.	•Demonstration of secure mobile wireless network with commercially available handsets. •Planning and design of pan-India SDCN.	Launch of WiPS services for end users and SDCN pan-India implementation	In 2013-14, the focus will be for commencement for pan-India SDCN implementation. Parallel, Field testing and validation of Wireless Phone , as well as launch of WiPS services are also planned in the year.

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Annexure - E

CENTRE FOR DEVELOPMENT OF TELEMATICS
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
8	Telecom services & application	Software intensive applications for Converged NMS service delivery platform to support multiple applications and value added services		10.39		NMS Mediation and Application Frame work, Decentralize Mediation System Service, Provisioning and Management System (SPMS)	•UNMS rel. V1.0.0 (base release): supporting configuration, accounting, number and fault management systems. •Tested client systems demonstrating the listed advanced features & service applications.	NMS Mediation and Application Frame work study, design & developme nt	• In the FY 2013-14, the focus will be on to the integration and validation of performance management mediation, TAM , abstraction layer for UNMS, other enhancements. •Implementation of additional services and features, integration and validation. • A new project Network Operation Centre (NOC) for NOFN project is being planned to commence from the FY 2013-14.

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Annexure - E

CENTRE FOR DEVELOPMENT OF TELEMATICS
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources				
9	Power efficient & green technologies for rural	To enhance the systems' power efficiency and technology trials for rural sectors.		2.00		Development of High efficiency RF amplifier (HERA)	Prototype high efficiency RF amplifier	Pilot/Field trial of HERA	In the FY 2013-14, the focus will be on to the integration, validation, pilot of High efficiency RF amplifier (HERA).
10	Enabling technologies & telecom networks	This scheme helps C-DoT to maintain its position of excellence in R&D, by conducting basic research as well as conducting studies and setting up pilots in new/green field areas in Telecom Enabling technologies & Networks.		4.31		Projects related to feasibility study / Proof of concept and setting up pilots in new / green field areas in telecom enabling technologies and networks.	•Report, PoC, demonstration of PoC &/or prototype. •Design & development of an IP-MLLN modem. •Field trial of IP-MLLN modem. •ToT & mass production of IP-MLLN modems.	The study programs are defined on year-to-year basis based on the technology forecasting trends, national telecom policy, interactions with specific requirements of prospective R&D organization(s), telecom regulating agency etc.	
		Total		**310.00**					

Annexure -F

TELECOM REGULATORY AUTHORITY OF INDIA

Outcome Budget 2013-14

(` in crore)

Sl. No.	Name of the Scheme / Programme	Objective / Outcome	Outlay 2013-14			Quantifiable deliverables / Physical outputs	Projected outcomes	Processes / Timelines	Remarks / Risk Factors
			4						
1	2	3	4(i) Non Plan Budget	4(ii) Plan Budget	4(iii) Complementary Extra Budgetary Resources	5	6	7	8
1	2	3	4(i)	4(ii)	4(iii)	5	6	7	8
1.	Institutional Capacity Building Project	To strengthen the Institutional capabilities of TRAI to perform its functions under the TRAI Act, 1999 including carrying out of Consultative studies on Regulatory Issues and provision of training	--	19.00	--	(a) Consultative Studies / Workshop on Regulatory issues. The list of proposed consultancies / Studies proposed to be taken is enclosed at Appendix (b) Provision of training of TRAI official on technical and Regulatory issues	The proposed studies will help TRAI in formulating its Recommendations and in other Regulatory functions To meet the training needs of TRAI officials	To be completed during 2013-14	
2.	Purchase of Land and Building (Capital) for TRAI Office	To obtain own office premises		3.00					Funds available under 'TRAI General Fund' (a non-lapsable fund) are proposed to be utilized as and when the proposal materializes.
		Total		**22.00**					

Annexure - G

TELECOM DISPUTES SETTLEMENT & APPELLATE TRIBUNAL [TDSAT]
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
1	Upgradation of TDSAT Reference Library	Purchase of books and other related materials to strengthen the Library		0.15		-			-
2	Study tour for Familiarization with the telecom regulatory Environment and Settlement of disputes / Training	Countries to be visited by the Hon'ble Chairperson & Members will be decided in the first quarter and thereafter study tours will be undertaken accordingly. Training programme for officers will be identified.		0.90		-			Since the itinerary depends on the action taken in the first quarter, targets have to be fixed accordingly for the next three quarters.

3	Holding of Seminars on Telecom Disputes & Settlement.	Places of seminars will be identified in various states of the country in the first quarter and thereafter action will be taken accordingly		0.45		-			Action taken would depend on the identification of places in the first quarter; targets have to be fixed accordingly for the next three quarters.
			Total	**1.50**					

Annexure –H

BHARAT SANCHAR NIGAM LIMITED
Outcome Budget 2013-14

(` in crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14*	Quantifiable Deliverables (Physical Targets)**	Actual Achievement (Physical)	Processes/ Timelines	Remarks / Risks / Constraints
1(a)	GSM Mobile Connections	To provide DELs on demand	2418.82	80 Lakh			
1(b)	Addition in GSM Capacity			90 lakh			
2	Landline	Migration of legacy customers to NGN	727.77	5 lakh			
3(a)	Broadband Connections	To provide Broadband connections (Wireline +Wireless)	937.54	30 lakh			
3(b)	Addition in Broadband Capacity			16.1 lakh ports			
4	OFC	To provide transmission network for new exchange & Mobile equipment and provide bandwidth for core network.	919.61	20000 RKMs			

5	Others *		589.26				
		Total	**5593.00**				

Note:-1.* Others includes funds requirement of IT, USO, Civil, Elect, TF, Ancillary units etc.

2. ** The physical targets are as per draft MOU 2013-14 submitted to DPE. The same will be finalised after discussion with Task Force constituted by DPE, scheduled in January, 2013.

Annexure - I

MAHANAGAR TELEPHONE NIGAM LIMITED

Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
1	Net new connections including WLL, Cellular and Broadband connections	Increase in Net new customers	-	643.36	-	650K	-	With in year 2013-14	
2	New Switching Capacity addition including capacity for WLL GSM, NGN ,IMS (in K)	Increase in Net Switching Capacity				Addition of 1100K lines in GSM network	Expansion of 2G / 3G GSM network	Dec-13	Delay in supplies by supplier, AT problem in site acquisition and finalization of tender/ orders. Delay in permission for digging/laying of ducts for cables.

Contd…]

MAHANAGAR TELEPHONE NIGAM LIMITED

Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
3	Deployment of DSLAM / FTTH ports	Increase in broadband and FTTH ports				Addition of 200K ports	Increase in broadband and FTTH capacity	-	
4	Optical Fibre Cable	Laying Of Optical Fibre				Laying of 40K fibre	Expansion of Fibre network	-	
5	IT related services	IT related Projects	–	133.57	–	Completion of various IT related projects	Completion of various IT related projects	-	
6	Expansion in New Services Areas abroad and National acquisitions	Service in Overseas Operations	–	10.00	–	–	–	Subject to new overseas suitable opportunities	
		Total		**786.93**					

Annexure - J

ITI LIMITED
Outcome Budget 2013-14

(` in Crore)

S. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
1	NPR Project	Establishment of additional manufacturing lines to manufacture Smart cards		0.01				Within the Financial year 2013-14	Only token provision provided by the Planning Commission
2	i)) G-PON ii) ADSL-DSLAM/CPEs iii) Carrier Ethernet/ DWDM/STMs v) Software Defined Radio (SDR) vi) SMPS/SCADA/ MLLN	Procurement of manufacturing equipments & test equipments							
3	Data Centre/IT Projects	Establishment of Data Centre and implementation of IT projects							
4	Upgradation of infra. at various Plants for manufacturing of products	Infrastructure at various plants to be upgraded to take up manufacture of new products							
5	Defence projects and R&D	Establish of manufacturing infrastructure to take up manufacture of products for Defence sector and to meet the Capital requirements needs of R&D							
6	Solar Power project & LED based projects	Establishment of manufacturing infrastructure							
7	Continuing Scheme	Provision for Repairs/Replacements							

		Total		**0.01**					

Annexure - K

DOT Schemes
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks / Risk Factors
			4			5	6	7	8
1	2	3	4(i) Non-Plan Budget	4(ii) Plan Budget	4(iii) Complementary Extra-Budgetary Resources				
1	**NICF:** **(A) Human Resource Management for Indian Posts & Telecom Accounts & Finance Service**								
	i) Mid Career Training	To prepare the officers for next level competency at five stages of their career progression		8.00		Training outcomes cannot be quantified.	Training of 3 batches under phase II, III & IV proposed.	By last quarter of 2013-14.	
	ii) Induction & In-service Course	Induction training of Group A & B of IP&TAFS and Group-C staff, refresher courses for In-Service officers.		3.00		Training outcomes can not be quantified	Enhancement of skill knowledge and positive attitude of about 700 participants.	Full Year	
	iii) Institutional & Capacity Development Schemes & Initiatives	To strengthen the mechanism of capacity building and institutional framework for IP&TAFS.		1.00		Training and development w.r.t. column 3	Mechanism of capacity building and institutional framework for IP&TAFS would be strengthened.	Full Year	
		Total		**12.00**					

[Contd.]

Annexure - K

DOT Schemes

Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4			5	6	7	8
1	2	3	4(i) Non-Plan Budget	4(ii) Plan Budget	4(iii) Complementary Extra-Budgetary Resources				
	(B) Physical Infrastructure for NICF	To prepare suitable training infrastructure for the training of officers in pursuance of National Training Policy.		23.99		Creation of training infrastructure	-	During 2013-14	
2	OFC based network for Defence Services (DS) (Army and Navy component)	To set up alternate network for Defence Services for releasing spectrum		2425.00		Laying of Optical Fibre Cable for Defence Services for providing alternate network	Alternate network on release of spectrum by Defence Services	Ongoing work	

[Contd.]

Annexure - K

DOT Schemes
Outcome Budget 2013-14

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2013-14			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4						
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	Complementary Extra-Budgetary Resources	5	6	7	8
3	Technology Development & Investment Promotion (TDIP)	i) Technology Development like R&D and IPR Generation ii) Promoting manufacturing and export of telecom equipment iii) For promotional schemes like Telecom Centres of Excellence (TCOEs), National and International Participation in exhibitions iv) Promotion of telecom sector through conferences and exhibitions in India and abroad.		1.50		Providing technical assistance for promoting investment in the manufacturing sector, export of telecom equipments to the developing/ underdeveloped countries, organizing Telecom events & other seminars and IPR Generation through Telecom Centres of Excellence (TCoE)	To project India as the hub for telecom equipment manufacturing and showcase the telecom growth in the country	Ongoing activity	

CHAPTER – III

Reform measures and Policy initiatives

3.1 Introduction

Indian Telecommunication sector has undergone a major process of transformation through significant policy reforms, particularly beginning with the announcement of NTP 1994. The major thrust of NTP 1994 was on universal service and qualitative improvement in telecom services and also, opening of private sector participation in basic telephone services. An independent statutory regulator was established in 1997. The most important landmark in telecom reforms, however, came with the New Telecom Policy 1999 (NTP-99). Rather than insisting on the prior fulfilment of its revenue obligations, NTP-99 allowed service providers to "migrate" from fixed license fee regime to a revenue sharing regime. Recognizing that broadband services can contribute significantly in the growth of national economy, Department of Telecom, announced Broad policy 2004 in October, 2004.

3.2 New Telecom Policy 1999

A world-class telecommunication infrastructure is a key to rapid economic and social development of the sector. It is critical not only for the development of the communications and information technology industry but also has wide spread ramification in various other sectors of the economy. Keeping these objectives in mind, the Government laid down the New Telecom Policy, 1999 (NTP, 1999). The guiding principles of the NTP are as follows:

- 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 PCOs[20], wherever justified, into Public Teleinfocentres having multimedia capability like ISDN services, remote databases 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 defence and security interests of the country.

[20] Public Call Offices

- To enable Indian telecom companies to become truly global players.

The key policy provisions of NTP-99 are:

1. As mentioned earlier, a significant shift from the fixed license fee regime to a license fee regime based on revenue sharing mechanism.
2. Interconnectivity and sharing of infrastructure among various service providers within the same area of operations is permitted.
3. Separation of policy and licensing function of the DoT from service provision function.
4. National long distance services sector to be opened to competition from January 1, 2000.
5. Service providers would carry both voice and data-traffic.

3.3 National Telecom Policy 2012

- National Telecom Policy-2012 (NTP-2012), approved by Union Cabinet on 31st May 2012, addresses the Vision, Strategic direction and the various Medium term and Long term issues related to Telecom sector.
- The primary objective of NTP-2012 is maximizing public good by making available affordable, reliable and secure telecommunication and broadband services across the entire country. The main thrust of the Policy is on the multiplier effect and transformational impact of such services on the overall economy. It recognizes the role of such services in furthering the national development agenda while enhancing equity and inclusiveness. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the National Telecom Policy – 2012. NTP-2012 also recognizes the predominant role of the private sector in this field and the consequent policy imperative of ensuring continued viability of service providers in a competitive environment. Pursuant to NTP-2012, these principles would guide decisions needed to strike a balance between the interests of users/ consumers, service providers and government revenue.

Salient features of the policy

LICENSING, CONVERGENCE AND VALUE ADDED SERVICES

- Strive to create ***One Nation - One License*** across services and service areas.
- Achieve ***One Nation - Full Mobile Number Portability*** and work towards ***One Nation - Free Roaming***.
- To orient, review and harmonise the legal, regulatory and licensing framework in a time bound manner to enable seamless delivery of converged services in technology neutral environment. Convergence would cover:
    - Convergence of services i.e. convergence of voice, data, video, Internet telephony (VoIP), value added services and broadcasting services
    - Convergence of networks i.e. convergence of access network, carriage network (NLD/ ILD) and broadcast network
    - Convergence of devices i.e. telephone, Personal Computer, Television, Radio, set top boxes and other connected devices.

- To ***move towards Unified Licence regime*** in order to exploit the attendant benefits of convergence, spectrum liberalisation and facilitate ***delinking of the licensing of Networks from the delivery of Services to the end users*** in order to enable operators to optimally and efficiently utilise their networks and spectrum by sharing active and passive infrastructure. This will enhance the quality of service, optimize investments and help address the issue of the digital divide. This new licensing regime will address the requirements of level playing field, rollout obligations, policy on merger & acquisition, non-discriminatory interconnection including interconnection at IP level etc. while ensuring adequate competition.
- Put in place a simplified Merger & Acquisition regime in telecom service sector while ensuring adequate competition.
- To ***facilitate resale at the service level*** under the proposed licensing regime – both wholesale and retail, for example, by introduction of virtual operators – in tune with the need for robust competition at consumer end while ensuring due compliance with security and other license related obligations.
- To ***delink spectrum in respect of all future licences***. Spectrum shall be made available at a price determined through market related processes.
- To ***frame appropriate Policies*** for new licensing framework, migration of existing licensees to new framework, exit policy, measures for ensuring adequate competition etc. in consultation with TRAI.
- To facilitate ***convergence of local cable TV networks*** post digitalisation.
- To put in place an appropriate regulatory framework for delivery of ***VAS at affordable price*** so as to fuel growth in entrepreneurship, innovation and provision of ***region specific content in regional languages***.
- To put in place a framework ***to regulate the carriage charges, which are content neutral and based on the bandwidth utilisation***. This will also encourage non value added services such as provision of data and information over the mobile platform.
- ***Reposition the mobile phone*** from a mere communication device ***to an instrument of empowerment*** that combines communication with proof of identity, fully secure financial and other transaction capability, multi-lingual services and a whole range of other capabilities that ride on them and transcend the literacy barrier.

SPECTRUM MANAGEMENT

- Ensure adequate availability of spectrum and its allocation in a transparent manner through market related processes. ***Make available additional 300 MHz spectrum for IMT services by the year 2017 and another 200 MHz by 2020.***
- To move at the earliest towards liberalisation of spectrum to enable use of spectrum in any band to provide any service in any technology as well as to permit ***spectrum pooling, sharing and later, trading*** to enable optimal utilisation of spectrum through appropriate regulatory framework..
- To undertake ***periodic audit*** of spectrum utilisation to ensure its efficient use.
- To refarm spectrum and allot alternative frequency bands or media to service providers from time to time to make spectrum available for introduction of new technologies for telecom applications.
- To ***prepare a roadmap*** for availability of additional spectrum every 5 years.

BROADBAND AND RURAL TELEPHONY

- ***Increase rural teledensity from the current level of around 39 to 70 by the year 2017 and 100 by the year 2020. .***

- To recognise telecom, including broadband connectivity as a basic necessity like education and health and work towards **'Right to Broadband'.**
- *Provide affordable and reliable* ***broadband-on-demand by the year 2015*** *and* ***to achieve 175 million broadband connections by the year 2017 and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand.***
- ***Provide high speed and high quality broadband access to all village panchayats through a combination of technologies by the year 2014 and*** progressively to all villages and habitations by 2020.

R&D, MANUFACTURING AND STANDARDIZATION OF TELECOMMUNICATION EQUIPMENT

- Promote the ecosystem for design, Research and Development, IPR creation, testing, standardization and manufacturing i.e. complete value chain for domestic production of telecommunication equipment to ***meet Indian telecom sector demand to the extent of 60% and 80% with a minimum value addition of 45% and 65% by the year 2017 and 2020 respectively***
- ***Create a corpus to promote indigenous R&D, IPR creation, entrepreneurship, manufacturing, commercialisation and deployment of state-of-the-art telecom products and services during the 12th five year plan period.***
- To promote ***setting up of Telecommunications Standard Development Organisation (TSDO)*** as an autonomous body with effective participation of the government, industry, R&D centres, service providers, and academia to drive consensus regarding standards to meet national requirements including security needs. It will facilitate access for all the stakeholders in the International Standards Development Organisations and act as an advisory body for preparation of national contributions for incorporation of Indian requirement/IPRs/standards in the international standards.
- ***Provide preferen***ce to domestically manufactured telecommunication products, in procurement of those telecommunication products which have security implications for the country and in Government procurement for its own use, consistent with our World Trade Organization (WTO) commitments.

TELECOM INFRASTRUCTURE/ ROW ISSUES, GREEN TELECOM, CLEAR SKYLINE, MITIGATION EFFORTS DURING DISASTERS AND EMERGENCIES

- To work towards ***recognition of telecom as Infrastructure Sector for both wireline and wireless*** and extension of the benefits available to infrastructure sectors to telecom sector also, to realize true potential of ICT for development.
- To facilitate increased use of alternative sources (Renewable Energy Technologies) of energy for powering telecom networks through active participation of all the stakeholders – the government, the telecom industry and the consumer for green telecommunications. Sector specific schemes and targets for promotion of green technologies will be finalised in consultation with Ministry of New and Renewable Energy (MNRE) and other stakeholders.

QUALITY OF SERVICE AND PROTECTION OF CONSUMER INTEREST

- To strengthen the regulator for ensuring compliance of the prescribed performance standards and Quality of Service (QoS) parameters by the Telecom Service Providers

- To formulate a ***Code of Practice for Sales and Marketing Communications*** to improve transparency as well as address security issues relating to Customer Acquisition
- To ***undertake legislative measures*** to bring disputes between telecom consumers and service providers ***within the jurisdiction of Consumer Forums*** established under Consumer Protection Act.

SECURITY

- To create an institutional framework through regulatory measures to ensure that ***safe-to-connect*** devices are inducted into the Telecom Network and service providers take measures for ensuring the security of the network..
- To ensure security in an increasingly insecure cyber space, indigenously manufactured multi-functional SIM cards with indigenously designed chips incorporating specific laid down standards are considered critical. The whole electronics eco-system for this and other purposes, starting from the wafer fab needs to be built and hence is viewed as a key policy objective and outcome.

SKILL DEVELOPMENT AND PUBLIC SECTOR

- To ***assess the manpower requirement at different skill and expertise levels by partnering*** with ***National Skill Development Council*** and ***industry*** to identify the relevant needs of the sector and prepare a roadmap.

CLOUD SERVICES

- To recognise that cloud computing will significantly speed up design and roll out of services, enable social networking and participative governance and e-Commerce on a scale which was not possible with traditional technology solutions.
- To take new policy initiatives to ensure rapid expansion of new services and technologies at globally competitive prices by addressing the concerns of cloud users and other stakeholders including specific steps that need to be taken for lowering the cost of service delivery.

TELECOM ENTERPRISE SERVICES, DATA USE NEW TECHNOLOGIES AND IPV 6 COMPLIANT NETWORKS

- To facilitate the role of new technologies in furthering public welfare and enhanced customer choices through affordable access and efficient service delivery. The emergence of new service formats such as ***Machine-to-Machine (M2M) communications*** (e.g. remotely operated irrigation pumps, smart grid etc.) represent tremendous opportunities, especially as their roll-out becomes more widespread.
- To recognize the importance of the new Internet Protocol IPv6 to start offering new IP based services on the new protocol and to encourage new and innovative IPv6 based applications in different sectors of the economy by enabling participatory approach of all stake holders.

FINANCING OF TELECOM SECTOR

- To create a ***Telecom Finance Corporation*** as a vehicle to mobilize and channelize financing for telecom projects in order to facilitate investment in the telecom sector.

- To ***rationalize taxes, duties and levies affecting the sector and work towards providing a stable fiscal regime*** to stimulate investments and making services more affordable.

ROLE OF REGULATOR, CHANGES IN LEGISLATION

- To review the TRAI Act with a view to addressing regulatory inadequacies/ impediments in effective discharge of its functions.
- To undertake a comprehensive review of Indian Telegraph Act and its rules and other allied legislations with a view to making them consistent with and in furtherance of the above policy objectives.

OPERATIONALISATION OF THE POLICY

- To take suitable facilitatory measures to encourage existing service providers to rapidly migrate to the new regime in a uniformly liberalised environment with a level playing field.
- Policy will be operationalized by bringing out detailed guidelines, as may be considered appropriate, from time to time.

3.4 Unified Access (Basic and Cellular) Services Licence Regime

Keeping in view the rapid expansion of telecom services and the fact advances in technologies erase distinctions imposed by earlier licensing systems, Government introduced in November, 2003 the following categories of licences for telecommunication services:

(i) Unified Licence for Telecommunications services permitting Licensee to provide all telecommunication/telegraph services covering various geographical areas using any technology;

(ii) Licence for Unified Access (Basic and Cellular) services permitted Licensee to provide Basic and/or Cellular Services using any technology in a defined service area.

3.5 Foreign Direct Investment (FDI) in Telecom sector

3.5.1 Telecom Sector is considered to be one of the most attractive sectors for foreign direct investment (FDI). Present FDI policy for the Telecom sector, subject to licensing and security requirements notified by the Department of Telecommunications, is as under:

Sl. No.	Sector/Activity	FDI Cap/Equity (Direct + Indirect)	Entry route
1.	Basic and cellular, Unified Access Services, National/International Long Distance, V-SAT, Public Mobile Radio Trunked Services (PMRTS), Global Mobile Personal Communications Services (GMPCS) and other value added telecom services	74%	Automatic up to 49% FIPB beyond 49%.

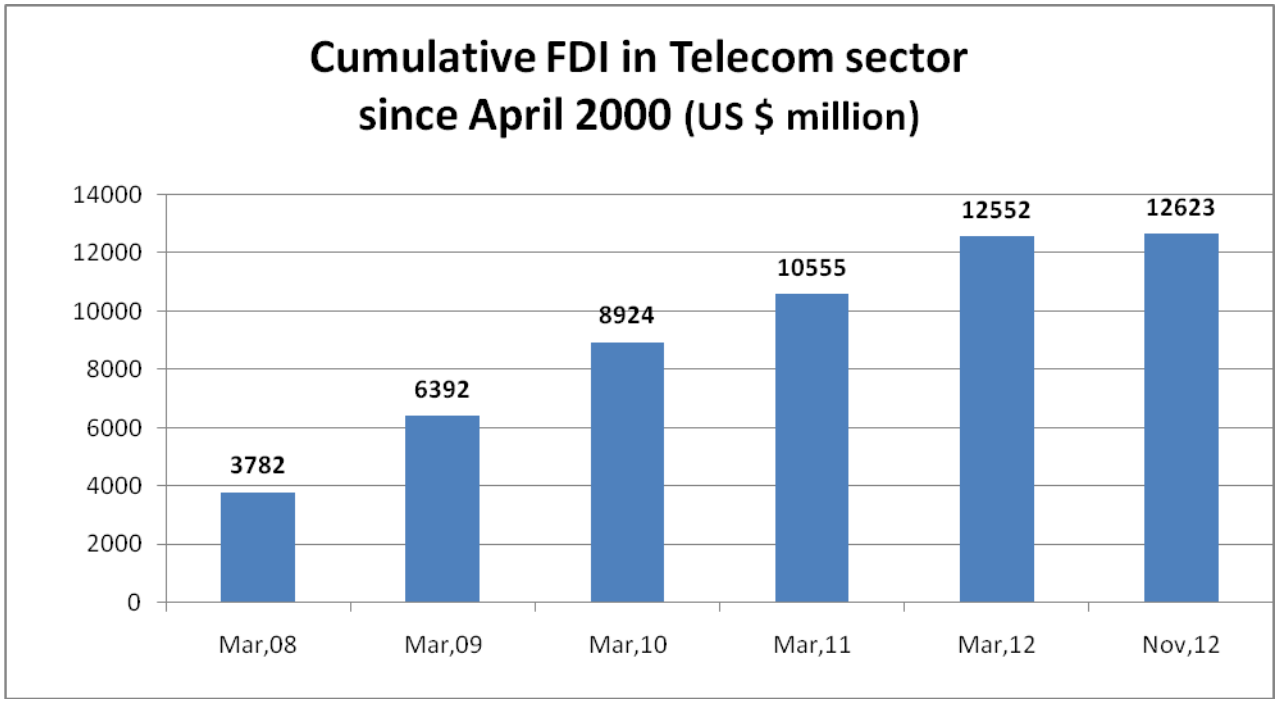
Sl. No.	Sector/Activity	FDI Cap/Equity (Direct + Indirect)	Entry route
2.	ISP with gateways, *ISP without gateway, Radio-paging, End-to-End Bandwidth provider.	74%	Automatic up to 49% FIPB beyond 49%
3.	a)** Infrastructure Provider providing dark fibre, right of way, duct space, tower (Category –I); b) **Electronic Mail and Voice Mail	100%	Automatic up to 49% FIPB beyond 49%
4.	Manufacture of Telecom Equipments	100%	Automatic

***** The government has revised guidelines for ISP's on 24-8-2007 and new guidelines provide for ISP licenses with 74% composite FDI only.

****** subject to the conditions that such companies will divest 26% of their equity in favour of Indian public in 5 years, if these companies are listed in other parts of the world.

3.5.2. Actual Inflow of FDI in Telecom Sector from April 2000 to November 2012 is 12,623 US $ in millions. The Cumulative FDI data for last five years and current year is as under:

Cumulative FDI in Telecom Sector Since 2000	
Up to Year Ending	**Cumulative FDI (US $ in million)**
March 08	**3782**
March 09	**6392**
March 10	**8924**
March 11	**10555**
March 12	**12552**
November 12	**12623**



Source: DIPP web-site

3.8 Thrust areas of the Department under 12th Five Year Plan

The Twelfth Plan Programmes for the telecom sector are guided by the NTP-2012. The thrust of NTP 2012 is on raising the competitiveness of Indian telecom sector, to make it a world leader, while at the same time making available a variety of services on a single platform utilising the technological advancements taking place in the sector. Spectrum, which is an important input has been a limited and reusable resource. With the introduction of new technologies, high bandwidth applications and increasing user base, there will be a requirement of significant amount of additional spectrum.

3.8.1 Twelfth Plan Targets

- Provision of 1200 million connections by 2017
- Mobile access to all villages and increase rural teledensity to 70 per cent by 2017
- Broadband connection of 175 million by 2017
- Commissioning of National Optical Fibre Network (NOFN)
- Make available additional 300 MHz of spectrum for IMT services
- Making India a hub for telecom equipment manufacturing by incentivising domestic manufacturers with thrust on IPR, product development and commercialisation
- Provide preferential market access for indigenously manufactured products
- To increase domestic manufactured products in telecom network to the extent of 60 per cent with value addition of 45 per cent by 2017
- Adoption of green policy in Telecom and incentivise use of renewable energy sources

3.8.2 Broadband

A key thrust area is to connect all villages with population more than 500 on National Optical Fiber Network (NOFN) to realize the vision of '**Broadband on Demand**'. Similarly, ensuring sufficient allocation of resources like spectrum, 'Right of Way' management and infrastructure sharing for broadband is essential. There is a need for national level effort to harmonise the policies of various state governments/ local bodies to address issues relating to allocation of land, power supply, grant of right of way and policy/ by-laws for erection of towers and so on. In addition, there is a need to provide incentives to encourage the uptake of broadband in sectors like education, healthcare, public safety, government operations, and so on.

National Optical Fibre Network:

The optical fibre presently has predominantly reached state capitals, Districts and blocks and there is plan to connect all the 2,50,000 Gram Panchayats (GPs) in the country through optical fibre utilizing existing fibres of PSUs viz. BSNL, RailTel and Power Grid and laying incremental fibre to connect to Gram Panchayats wherever necessary. Dark fibre network thus created will be lit by appropriate technology thus creating sufficient bandwidth at GPs level. This will be called National Optical Fibre Network (NOFN). Thus prevailing connectivity gap between GPs and Blocks will be filled. Non-discriminatory access to the network will be provided to all the telecom service providers. These access providers like mobile operators, ISPs, Cable TV operators and content providers can launch various services in rural areas. Further the broadband connectivity to 2.5 lakh GPs for various applications like e-health, e-education and e-governance etc. by these operators. The total cost of the schemes is estimated to about ` 20,000 crore. The scheme has been approved by Government of India. The network is proposed to be completed in two years' time. The project will be funded by Universal Service Obligation Fund (USOF). This project will be executed by a Special Purpose Vehicle, named **"Bharat Broadband Network Limited"** incorporated for this purpose.

3.8.3 Research & Development

- Telecom Equipment and Services Export Promotion Council (TEPC) has been set up for providing platform for export promotion of telecom equipment and services. The Export of telecom equipments including mobile phones, parts and telecom cables during 2011-12 is ` 201989 million and 2012-13 (upto September, 2012) is ` 109266 million.

- The Government has set up seven Telecom Centres of Excellence (TCOE India) in Public Private Partnership (PPP) mode at country's premier technical and management education institutes. The

leading telecom operators have joined in as principal sponsors. The TCOE initiative intends to harness the potential of our people and the industry to match global standards and competitiveness.

The major achievements of the TCOEs are as follows:

i) 27 Telecom Technologies have been developed by TCOEs and are now available for commercialization.

ii) A similar for optimization of Powering Cellular Base Station to grapple the issue of providing power backup for telecom base stations, is developed at Reliance IIT Madras Telecom Centre of Excellence (RITCOE) and was launched on 16th October 2012. It has won the 6th Enertia Awards 2012 under the category "Technology & Innovation-Special Jury Award in Renewable Energy R&D (Solar)".

iii) TCOE, Cellular Operators Association of India (COAI) and Indian Cellular Association (ICA) have joined hands for setting up Telecom Sector skills Council (TSSC) in India under the aegis of the National Skills Development Corporation (NSDC). TSSC will strive to create a viable ecosystem to develop competency based framework for standards, curriculum and quality assurance.

3.9 DoT - USOF's Sanchar Shakti Scheme:

Recognizing the vital role that Information & Communication Technology (ICT) can play in the empowerment of the rural women, a scheme has been launched for pilot projects aimed at facilitating women's Self Help Groups (SHGs) access to ICT enabled services. The Sanchar Shakti scheme covers following categories of projects.

(i) Provision of a mobile value added service (VAS) subscription to SHG with services validity/warranty of at least one year.

(ii) Setting up of SHG run mobile repair centres in rural areas.

(iii) Setting up of SHG run modem repair centres in rural areas.

(iv) Setting up of SHG run solar based mobile/CDMA FWT charging centres in rural areas.

Financial support from USO Fund is envisaged to be provided towards mobile VAS subscriptions for SHGs in accordance with the provisions of underlying subsidy Agreements. Of the nine mobile VAS projects for which "Proof of Concept" (PoC) was done in 2011, four have been approved for implementation. Agreements have been signed for two projects upto 31.12.2012.

In BE-2013-14, Rs. 2.2 Crore was projected as outlay for USOF's gender budget but due to dropping of Sasken- T.N. & Haryana project , the BE has been reassessed as Rs 1.50 crore.

Chapter – IV

Review of Performance

A. Department of Telecommunication

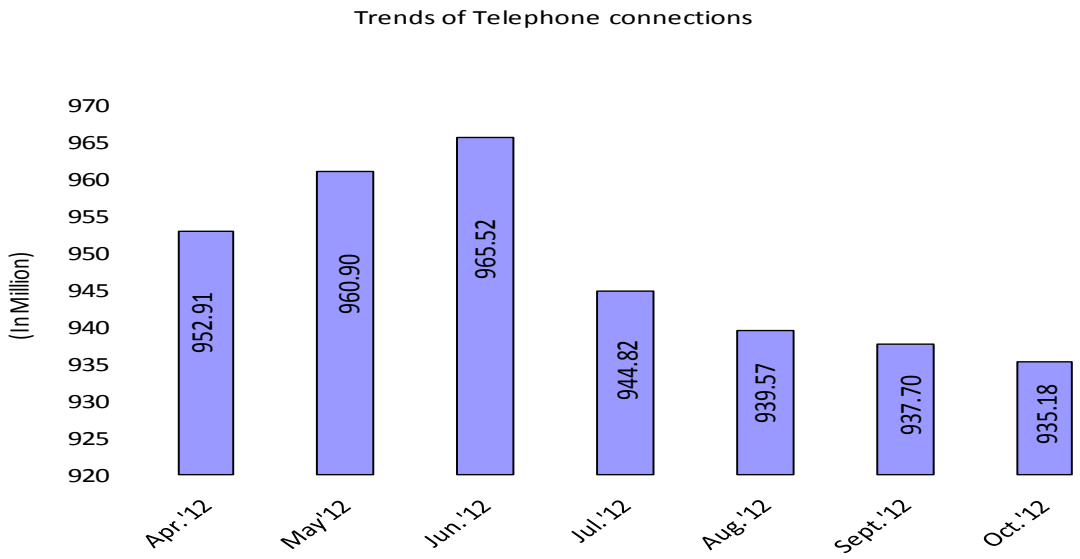
4.1 Overview of the Telecom Sector

The Indian telecom sector has registered a phenomenal growth during the past few years and has become second largest telephone network in the world, only after China. A series of reform measures by the Government, the wireless technology and active participation by private sector played an important role in the exponential growth of telecom sector in the country. Tele-density, which shows the number of telephones per 100 population, is an important indicator of telecom penetration in the country. The tele-density in the country stands at 76.75% at the end of October 2012. Among the service areas, Tamil Nadu (115.74%) has the highest tele-density followed by Himachal Pradesh (106.80%), Punjab (106.04%), Kerala (104.14%) and Karnataka (97.23%). Among the three metros, Delhi tops with 229.95% tele-density, followed by Mumbai (166.12%) and Kolkata (165.18%). On the other hand, the service areas such as Bihar (46.93%), Assam (47.62%), M.P. (55.47%), U.P. (58.37%), J&K (58.62%) and West Bengal (60.48%) have comparatively low tele-density.

4.1.1 Network Expansion

The total number of telephones continued to increase till June 2012 and increased from 951.35 million to 965.52 million during the period April to June 2012. Thereafter, number of telephone connections declined to 935.18 million by the end of October 2012. The decline in telecom user base after June 2012 has been primarily due to the removal of inactive mobile telephone connections by the service providers. However, the rural telephones have increased from 330.83 million to 343.88 million during the period April to June 2012 and to 344.49 million by the end of October 2012. The urban telephones increased from 620.52 million to 621.65 million during the period April to June 2012 and then declined to 590.68 million by the end of October 2012.

The graph below indicates the number of connections at the end of each month during the year 2012-13 (upto Oct. 2012).



The telephone subscriber base in the country has declined by 16.17 million telephones during the period April to October 2012 as compared to the additions of 68.27 million telephone connections during the corresponding period of 2011-12.

4.1.2 Teledensity

Tele-density, which was 78.66% at the end of March 2012, increased to 79.58% by the end of June 2012 and then declined to 76.75% by the end of October 2012. There has been improvement in the rural tele-density during 2012-13 and it increased from 39.26% at the end of March 2012 to 40.66% at the end of October 2012. However, the urban tele-density decreased from 169.17% to 159.15% during this period. The month-wise tele-density from March 2012 to October 2012 is shown below:

Year 2012-13	Tele-density in %		
	Rural	Urban	Overall
March	39.26	169.17	78.66
April	39.61	168.43	78.71
May	40.21	168.88	79.28
June	40.71	168.62	79.58
July	40.44	163.29	77.79
August	40.24	161.98	77.28
September	40.40	160.75	77.04
October	40.66	159.15	76.75

4.1.3 Trends in the composition of telephones

A. Public vs. Private

Operator-wise classification reveals that PSUs still have a large share of nearly 79.72% in the wire line segment. Private operators, on the other hand, have a share of 88.36% in the wireless segment. Overall, Bharti Group with 20.28% of the total telephones, both landlines and mobiles taken together, in the country has the largest share followed by Vodafone Group (16.38%), Reliance (14.46%), two PSUs BSNL & MTNL put together (13.90%) and Idea (12.37%).

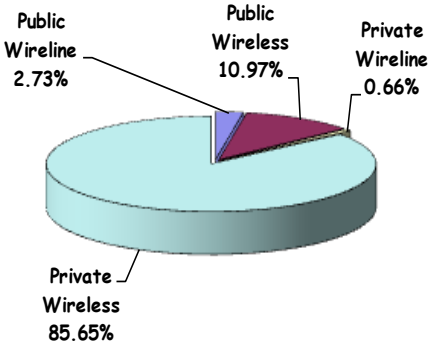
The share of private sector, in terms of number of subscribers, increased from 86.31% to 86.64% during the period from April to June 2012 and thereafter declined to 86.10% by the end of October 2012. On the other hand, share of public sector declined from 13.69% to 13.36% during the period April to June 2012 and then increased to 13.90% by the end of October 2012.

B. Wire line vs. Wireless

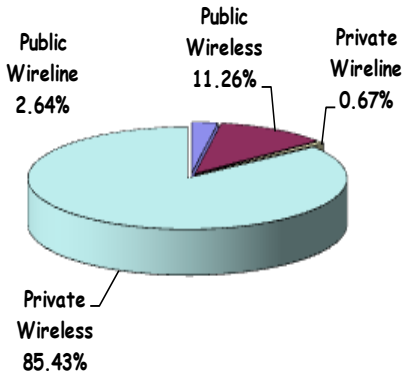
As far as the technology is concerned, the preference for use of wireless telephony continues. The share of wireless telephones increased from 96.62% as on 31.03.2012 to 96.74% by the end of June 2012 and thereafter slightly declined to 96.69% by the end of October 2012. On the other hand, the number of landline telephones declined from 32.17 million to 30.95 million during the period from April to October 2012.

The graphical representation of the compositional changes in the telecom sector is shown in the following pie charts:

Composition of Telephones in March 2012



Composition of Telephones in October 2012



The following table shows the performance of telecom sector during the financial years 2011-12 and 2012-13 (up to October 2012):

(Telephone figures are in million)

Sl. No.	Name of Item	At the end of March		At the end of Oct. 2012
		2011	2012	
1	**Total telephones**	846.33	951.35	935.18
2	**Landline telephones**	34.73	32.17	30.95
3	**Wireless telephones**	811.60	919.17	904.23
4	**Rural telephones**	282.29	330.83	344.49
5	**Urban telephones**	564.04	620.52	590.68
6	**Telephones of Private Sector**	720.32	821.08	805.21
		85.11%	86.31%	86.10%
7	**Telephones of Public Sector**	126.01	130.27	129.97
		14.89%	13.69%	13.90%
8	**Rural tele-density in%**	33.83	39.26	40.66
9	**Urban tele-density in %**	156.93	169.17	159.15
10	**Overall tele-density in %**	70.89	78.66	76.75

4.1.4 Rural Telephony

It is intimated that the disbursement of subsidy from USO Fund for all USOF activities was under Non - Plan expenditure upto the Financial Year 2010-11. From the Financial year 2011-12, the expenditure of USOF has been shifted from Non – Plan to Plan. The scheme named Village Public Telephones (VPTs) in uncovered villages as per census 1991 under USOF has been included in **Bharat Nirman Programme**. Agreements were signed with BSNL in November 2004 to provide subsidy support for provisioning of VPTs in 62,302 uncovered villages in the country excluding those villages having population less than 100, those lying in deep forests and those affected with insurgency. Till the closure of rollout period, 62101 VPTs have been provided. BSNL has provided 62135 VPTs till 31-12-2012.

a) During the year 2011-12, ` 13.35 crore was allocated and disbursed.

b) During the year 2012-13, ` 6.02 crore has been proposed under this scheme and ` 3.61 crore has been disbursed till 31.1.2013.

c) During the year 2013-14, ` 6.26 crore has been proposed for this scheme.

d) Total ` 227.30 Crore has been disbursed till 31-01-2013 under the scheme.

Expenditure incurred during 11th Plan for Village Public Telephones (VPTs) in uncovered villages as per census 1991 under USOF is as follows:

Sl No	Year	Subsidy disbursed (` in Crore)
1	2007-08	44.73
2	2008-09	18.65
3	2009-10	36.88
4	2010-11	24.83
5	2011-12	13.35
Total		**138.44**

The validity of the scheme has expired on 9th November 2012. Remaining villages of the scheme would be provided with VPT facility under USOF scheme of VPTs in newly identified uncovered villages as per Census 2001, rollout for which is likely to be completed within the current financial year. However, remaining VPTs, if any, will be provided in FY 2013-14.

Target and achievement during 11th Plan is as under:

Year	**Target**	**Achievement**
2007-08	17819	7188
2008-09 (Extended Period)	12665	3024
2009-10 (Extended Period)	5121*	4492
2010-11 (Extended Period)	629	357
2011-12 (Extended Period)	272	**58**
Total		**15119**

* Target of VPTs in uncovered villages was revised from 66822 to 62302.

Reasons for Shortfall:

Remaining VPTs were proposed to be installed on DSPTs by BSNL but BSNL could not finalize its tender for procurement of DSPTs. The validity of scheme has already expired on 09-11-2012 and there will be no further installation of VPTs under the scheme. However, Remaining villages of the scheme would be provided with VPT facility under USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

During the year 2012-13, ` 6.02 crore has been proposed for this scheme under USOF and ` 3.61 crore has been disbursed till 31.1.2013.

4.1.5 Internet Service

- As on 31.12.2012, there are 392 licensees out of which 224 are permitted to offer Internet Telephony. There are about 24.01 million internet subscribers (excluding Internet Access by Wireless Phone Subscribers) and 14.68 million broadband subscribers as on 30.09.2012, as provided by Internet Service Providers.

- As on 31.12.2012 about 122 ISP licences are existing under ISP guidelines dated 24.08.2007

4.1.6 VSAT Services

- As envisaged in the NTP 99, licenses are granted on non exclusive basis for Very Small Aperture Terminal (VSAT) services using INSAT satellite system within the territorial boundaries of India. Under the VSAT license, the licensees provide data connectivity within Common User Group (CUG) between various sites scattered throughout India using VSATs and central hub. There are two categories of VSAT licenses :

  i) Captive CUG VSAT license wherein the licensee company can set up VSAT network for its internal use only. As on 31.12.2012 there are 36 captive CUG VSAT networks and the number of VSATs under this service is around 7,500 as on 31.12.2012.

  ii) Commercial Common User Group (CUG) VSAT license wherein the licensee company can provide CUG VSAT service to a number of CUGs on commercial basis. As on 31.12.2012 there are 13 licenses for commercial CUG VSAT services and the number of VSATs under this service is around 1,65,000 as on 31.12.2012.

4.1.7 Telecom Equipment Manufacturing

With the advent of next-generation technologies and operators looking to roll out 3G and broadband wireless access services, the demand for telecom equipment has increased rapidly. In an attempt to capitalize on this opportunity, the government and policy makers are focusing on developing the domestic manufacturing industry.

With a view to increase domestic telecom equipment manufacturing industry and making India a manufacturing hub, the National Telecom Policy-2012 (NTP 2012), inter-alia, has following objectives to promote R&D, Manufacturing and Standardization of Telecommunication Equipment:

- Promote innovation, indigenous R&D and manufacturing to serve domestic and global markets, by increasing skills and competencies.
- Create a corpus to promote indigenous R&D, IPR creation, entrepreneurship, manufacturing, commercialisation and deployment of state-of-the-art telecom products and services during the 12th five year plan period.
- Promote the ecosystem for design, Research and Development, IPR creation, testing, standardization and manufacturing i.e. complete value chain for domestic production of telecommunication

equipment to meet Indian telecom sector demand to the extent of 60% and 80% with a minimum value addition of 45% and 65% by the year 2017 and 2020 respectively.

- Provide preference to domestically manufactured telecommunication products, in procurement of those telecommunication products which have security implications for the country and in Government procurement for its own use, consistent with our World Trade Organization (WTO) commitments.

The Government, vide Notification No. 8(78)/2010-IPHW dated 10th February 2012, laid down the policy for providing preference to domestically manufactured electronic products (including telecom equipment) in Government procurement and in procurement having security implications.

In furtherance of the above notified policy, Department of Telecommunications has notified telecom products to be procured by Government vide notification No. 18-07/2012-IP dated 5th October 2012 as amended. The notification provides 50% to 100% preferential market access for domestically manufactured telecom equipment with minimum value addition of 25% to 65%.

4.2 Visit of Ministers and other Dignitaries/Delegations to Foreign Countries:

The period April –December 2012 was marked with several important activities and visits in the sphere of International Relations for DoT.

There were significant activities in multilateral cooperation with Intergovernmental Organizations such as ITU, APT, ITSO, CTO etc. Indian high level delegations visited foreign countries in strengthening the bilateral relations and technological cooperation and several foreign dignitaries also visited India reflecting the growing prominence of India. The activities on International Relations front have been characterized as below:

- **Strategic activities**
- **Activities on Bilateral Cooperation**
- **Activities on Multilateral Cooperation and Conferences of Intergovernmental and International Organizations**
- **International Exhibitions and Promotion events**

Strategic Activities

The IR Cell made a presentation on August 16thto Hon'ble MoC& IT on strategic plan of IR cell on International relations to complement the efforts of DoT units to accomplish the objectives of NTP 2012. Strategic countries of importance in this direction have been identified along with Vision document for IR cell and action plan for transmission of outcomes on International relations front to the stakeholders has been prepared.

Bilateral Cooperation

I. Indian Delegations Visiting Abroad

- **Israel**: A high level delegation led by Hon'ble Minister of Communications & IT accompanied by DG(CERT), DeitY and DDG(Security), DoT visited Tel Aviv, Israel from 3rd – 7th April, 2012. Focus was bilateral cooperation on security of ICTs and Technologies.
- **USA**: The DDG Security, DoT participated in the Indo-Strategic Dialogue on Cyber Crime and Indo-US ICT working group meeting held at Washington during 4-8 June.
- **Pakistan:** The DDG(CS), DoT was part of the Indian delegation led by Commerce Secretary visited Pakistan for a bilateral meeting from 20-21 September. There were deliberations on mobile roaming implementation between the countries.
- **Canada**: The DDG IP, DoT participated in the India – Canada Comprehensive Economic Partnership Agreement (CEPA) meeting held at Ottawa, Canada during 15-17th November as part of an Indian composite delegation. Both sides discussed the draft text in respect of cooperation in the field of Telecommunications and IT to be incorporated in CEPA.

II. Foreign Delegations visited India

Important foreign delegations that visited India are as below

- **Japan**: H.E. Mr. Kimiaki Matsuzaki, Senior Vice Minister for Internal Affairs and Communications, Japan met Hon'bleMoC&IT on April 30 in Shastri-Bhawan, New Delhi. Both leaders discussed various issues for enhancing cooperation between two countries in the field of Telecommunications and IT in the years to come.
- **Finland:** Ambassador Ms TerhiHakala met Hon'bleMoC&IT on July 24 in Sanchar- Bhawan, New Delhi. Ms Hakala paid courtesy visit after completion of her assignment in India.
- **Lao PDR**: Mr. Hiem Phommachanh, Lao PDR Minister of Post-Telecommunications and Communication visited New Delhi to participate in India-ASEAN Meeting held under the aegis of Ministry of External Affairs. During his visit to India, he met with the Top Management of MTNL on December 21 and visited MTNL's Network Operation Centre(NoC) and Data Centre.

III. Multilateral Cooperation:

i. **Visit of SG, ITU**: Secretary General, ITU, Dr. Hamadoun Toure, was on his first official mission to India during 7-9th May. He had meetings with Hon'ble MoC& IT, Hon'ble MoSC& IT (D) and top management of DoT. He also met industry leaders, industry associations. Several key areas of cooperation between ITU and India were discussed in the context of inviting Indian partnership in ITU Development projects in the region, WCIT etc.

ii. **SASEC Information Highway**: The DDG CS participated in the South Asia Sub-regional Economic Cooperation (SASEC) Information Highway Bilateral Interconnection Agreement Meeting during 25-27th April, 2012 at Manila, Philippines. The technical and financial issues of the project have been deliberated.

iii. **International Telecommunications Satellite Organization (ITSO)**: The Member (Services), Telecom Commission participated in the 35th ITSO Assembly Parties meeting

held at Kampala from 3-6th July accompanied by Director, DS-I DoT. The ITSO Assembly deliberated important aspects of continuation of ITSO structures and agreement. India also voted in favour of continuation of ITSO agreement beyond 2013.

iv. **World Summit on Information Society (WSIS):** The DDG (IR), DoT participated in the WSIS meeting at Geneva, Switzerland from 15-18th May 2012. On the sidelines of WSIS, there was a meeting conducted by CSTD (UN - Commission on Science and Technology for Development) on issues related to governance of internet. During this meeting the Permanent Representative (PR) of India to UN gave a statement highlighting the necessary actions required to be taken to achieve enhanced cooperation in the overall governance of Internet as envisaged in the WSIS outcome.

v. **World Telecommunication / ICT Indicators Meeting (WTIM):** The Economic Advisor, DOT and Director IR-II, DoT participated in the WTIM at Bangkok in September. The WTIM and the Expert Group on Telecommunication / ICT Indicators (EGTI) meeting focussed on the inclusion of new indicators on Telecommunication / ICT and mechanisms to strengthen the data gathering and analysis for providing inputs to policy makers and enterprises in the direction of enhanced ICT penetration and usage.

vi. **Number Portability Global Summit:** Sr. DDG AS, DoT participated in this global summit during 22-24th October that deliberated on the important aspects of technology, regulatory and policy trends in Number Portability regimes.

vii. **Management Committee (MC) meeting of Asia Pacific Centres of Excellence (ASP CoE) of ITU**: The DDG BB, USOF participated in the MC meeting of ASP CoE at Busan during 8-12th October. The MC meeting reviewed the activities of the current year and explored the new plans for the coming year with the Member countries. India is in the MC of ASP COEs which work on Capacity Building on ICTs in the regional member countries. There have been proposals to upgrade and offer these technical trainings from DOT/ BSNL/MTNL training centres to share the Indian expertize and success story in telecommunications.

viii. **Information session on WCIT and World Telecom Policy Forum meetings**: The DDG IR participated in the meetings at Geneva during 8-12th October as a precursor to the upcoming historical World Conference on International Telecommunication (WCIT) to review the International Telecommunication Regulations (ITRs). This program gained significance to understand individual countries' position on ITRs draft provisions.

ix. **Management Committee meeting of Asia Pacific Tele-community (APT):** A high level delegation led by Member (Finance) accompanied by Advisor (Technology), Director (IR-I) participated in the meeting at Bangkok during 6-9th November. During the meeting which takes place annually, various issues pertaining to APT annual programs and necessary agreements between the Telecommunity and Governments were discussed. The committee reviewed and approved the work program, annual training programs and budget for 2013 year.

x. **52nd Session of CTO meeting and Annual Forum Oct 22-26, 2012, Mauritius**: Indian delegation led by the Advisor (Technology) participated in the CTO meeting and Annual forum as an Observer. After a gap of several years, India participated in the CTO event to renew the relationship with Commonwealth Tele-community.

xi. **World Conference on International Telecommunication (WCIT) 2012**: This historical conference took place at Dubai during 3-14th December to review the ITRs originally prepared in 1988 at Melbourne in view of transformation in Telecommunication Technology,

Services and Market structures. The ITRs provide general principles in International Telecommunication Regulations for harmonious growth of International telecommunication facilities and services.

International Telecommunication Exhibitions and Promoting Events

i. **6th International Conference on Telecommunications Telemetry and IT, TurkmenTEL 2012**: A delegation led by Hon'ble MoC&IT visited Ashgabat, Turkmenistan during September 17-18,2012 to participate in International Conference on ICT, TurkmenTEL 2012. During his two day visit to Turkmenistan, Hon'ble MoC&IT had bilateral discussions with the Ministers of Turkmenistan in-charge of Education/IT and Transport/Communications. During the course of discussion, Hon'ble Minister offered India's support in setting up Telecommunication infrastructure in Turkmenistan, particularly, Satellite system & OFC Network. He also offered India's support in building infrastructure for providing better education to the younger generation through ICT application and services such as by providing low cost tablet "AKASH" to Turkmenistan Students based on Turkmenistan side's requirement.

ii. **ITU Telecom World 2012 at Dubai**: A high level delegation led by Hon'ble MoC&IT participated in the ITU Telecom World 2012 at Dubai during 14-15th October. The delegation consisted of Secretary (T), Sr. DDG (TEC), PS to Hon'ble MoC& IT and Director (IR-II). The Hon'ble Minister participated in the high level plenaries viz. Presidential session and a session on Cyber Warfare. The Indian pavilion for the GITEX 2012 was inaugurated by the Hon'ble Minister. On the side lines of ITU Telecom world, The Hon'ble Minister had high level meetings with Secretary General – ITU, Minister of Communications Azerbaijan and INTELSAT senior management. The ITU carried out an exclusive video interview with the Hon'ble MoC& IT during the event.

iii. **Shanghai Exhibition**: The Director (T) visited Shanghai, China during 20-22nd June for International Promotion of the India Telecom 2012 Exhibition and Conference.

iv. **Communicasia**: A delegation comprising DDG TPF, DDG IP, Director TERM, Ahmedabad participated in the event at Singapore during 19-22nd June. The Communicasia is an annual mega event in Southeast Asia on Communication Technologies and innovative developments.

v. **Futurecomm**: The DDG IP participated in the Futurecom 2012 event at Rio De Janeiro, Brazil during 08-11th October.

vi. **GITEX-2012:** The Director IP participated in the GITEX 2012 fair held at Dubai during 14-18th October.

vii. **Promotion of India Telecom 2012**: The Director (T) visited Canada during 23-27 October 2012 for overseas promotion of India Telecom 2012.

World Hindi Conference

A delegation led by JS (Admn) participated in the World Hindi Conference at Johannesburg, SA. The delegation consisted of Joint Director (OL) and Addl. PS to Hon'ble MoC& IT.

4.3 Telecommunication Engineering Centre (TEC):

(i) TEC is responsible for standardization activities in India for telecom sector writing of specifications for all the telecom operators, accord Approval and Services test certificates etc. During the period from April 2012 to January 2013 about 11 GRs/ IRs were prepared, 18 GRs/IRs revised.

(ii) TEC is responsible for preparation of Test Schedule during the period April to January 2013, about 29 Test Schedules were prepared. The review of the performance for the year 2011-12 and for the year 2012-13 (up to December 2012) is placed at **Annexure-L**.

4.4 Wireless Planning and Co-ordination

The Wireless Planning and Coordination Wing of the Department of Telecommunications deals with the spectrum management, wireless licensing, frequency assignments, international coordination for spectrum management and administration of Indian Telegraph Act 1885, (ITA, 1885), for radiocommunication systems and Indian Wireless Telegraphy Act 1933, (IWTA, 1933)

4.4.1 Spectrum Management

Spectrum Management is the combination of administrative and technical procedures necessary to ensure the efficient operation of radio communication services. Spectrum management is carried out in line with International Frequency Allocation Table of Radio Regulation of International Telecommunication Union (ITU), National Frequency Allocation Plan (NFAP) and also ensuring Electromagnetic Interference (EMI)/ Electromagnetic Compatibility (EMC). The details are given below:

- Cellular Mobile Service using CDMA technology uses frequencies in 800 MHz frequency band (869-889 MHz paired with 824-844 MHz).
- Cellular Mobile Service using GSM technology uses frequencies in 900 MHz frequency band (890-915 MHz paired with 935-960 MHz) and 1800 MHz band (1710-1785 paired with 1805 -1880 MHz).
- Mobile Services using WCDMA (3G) technology use 2.1 GHz band (1920-1980 MHz paired with 2110-2170 MHz).
- BWA service uses frequencies in the frequency band 2.3 -2.4 GHz and 2.5 -2.69 GHz.
- Point to point fixed Microwave Access for these networks uses frequency bands 15/18/21/23 GHz as appropriate for establishing compatibility of electromagnetic radiation to ensure interference free operation of all such networks with other available networks.
- Backbone Microwave Access for these networks uses 6/7 GHz frequency bands.
- One of the BWA service providers has launched BWA services in Kolkata and Bangalore service area.
- Internet Service Provider (ISP) service uses frequency bands 2.7-2.9 GHz and 3.3-3.4 GHz.
- Frequencies are also assigned for Captive usages to Govt., PSUs and Private entities in different frequency bands.
- Spectrum in the 2G bands of 800 MHz and 1800 MHz were put to auction. In the auction conducted, no bidding interest was expressed for spectrum in the 800 MHz band. The auction for spectrum in

the 1800 MHz which commenced on 12.11.2012, concluded on 14.11.2012 with each participant that bid for spectrum securing the same. No bids were received in four service areas namely Delhi, Mumbai, Karnataka and Rajasthan in the 1800 MHz band. The total value of blocks allocated in the auction of 1800 MHz band was ` 9407.64 crore.

- Orders for levying one time spectrum charge on spectrum holding by existing GSM operators beyond 6.2 MHz with effect from 01.07.2008 and beyond 4.4 MHz from 01.01.2013 have been issued.
- Auction of spectrum in 1800 MHz band in 4 service areas i.e Delhi, Mumbai, Karnataka and Rajasthan where no bids were received in the last auction held in November, 2012, auction of spectrum in 900 MHz band in three Metro service area i.e. Delhi, Mumbai and Kolkata and auction of spectrum in 800 MHz band in 21 service areas are scheduled to be held in March, 2013.
- SACFA clearances are granted for fixed wireless stations ensuring aviation safety, interference free operations and line of sight obstruction.
- Delicensing of frequency band 433-434 MHz: Based on the requests received from various applicants, a Gazette Notification G.S.R.680 (E) dated 12th September, 2012 for delicensing frequency band 433-434 MHz has been issued for the usage of low power devices or equipments for indoor applications in the 433 to 434 MHz frequency range, on non-interference, non-protection and shared (non exclusive) basis.

4.4.2 International 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. Operator level coordination meeting took place during September, 2012 with Asia Broadcast Satellite (ABS) to resolve technical issues.

4.4.3 Coordination with ITU

a. Notifications

Frequency notices for registration requests for IRS-P5 (NGSO) and IRS CARTOSAT-2 (NGSO) satellite networks have been forwarded to BR for publication in BR IFIC of Radio communication Bureau and the same were published by BR in concerned special section of BR IFIC.

Frequency notices for registration requests for INSAT-2(83), INSAT-KU10(111.5)E, INSAT-KU10(55)E, INSAT-NAV-GS (NGSO) and INSAT-NAV-A-GS (NGSO) satellite networks have been forwarded to BR for publication in BR IFIC of Radio communication Bureau and the same was published by BR in concerned special section of BR IFIC.

b. Administrative Due-diligence

Administrative Due-diligence in respect of satellite networks INSAT-KU11(55)E (55)E has been forwarded to ITU for publication in BR IFIC of Radiocommunication Bureau and the same was published by BR in concerned special section of BR IFIC.

c. Co-ordination Request

Additional information on Mars Mission of India, RISAT (NGSO), INSAT-NAV-GS (NGSO) and INSAT-NAV-A-GS (NGSO) satellite networks of Indian Administration was submitted to ITU and the same was published by BR in concerned special section of BR IFIC.

Coordination requests in respect of INSAT-NAV-NGSA (NGSO) and INSAT-NAVR_GS (NGSO), INSAT-NAVR (32.5), INSAT-NAVR (83), INSAT-NAVR (120.5), INSAT-NAVR (121.5), INSAT-NAVR (123.5), INSAT-NAVR (126.5), INSAT-NAVR (127.5) and INSAT-NAVR (129.5) were submitted to ITU for publication in BR IFIC of Radio communication Bureau and the same were published by BR in concerned special section of BR IFIC.

d. Advanced Publication Information

Advanced Publication Information of Moon Mission (NGSO), CHANDRAYAAN-2, INSAT-NAVR-GS (NGSO), Mars Mission, RISAT and MEGHA-TROPIQUES (NGSO) satellite network were sent to BR for publication in IFIC and the same were published by BR in concerned special section of BR IFIC.

Advanced Publication Information of INSAT-NAV(93.5) (93.5E) and ASTROSAT (NGSO) and Modified API in respect of MARS MISSION (NGSO) satellite network were sent to BR for publication in IFIC and the same were published by BR in concerned special section of BR IFIC.

e. BSS Plan as per Appendix-AP30/30A:- BSS Plan modification and associated feeder links in respect of INSAT-KUP-BSS (58.5E), INSAT-KUP-BSS (68E) on 58.5E and 68E were submitted to BR.

Advanced Publication Information (API/s) published in BR IFIC in respect of satellite networks of Israel, UK, Malaysia, Japan, Luxemburg, China, France, Norway, Russia, Azerbaijan, Germany, USA,

Kazakhstan, UAE, PNG, Qatar, Iraq, Korea, Australia, Spain, Italy and Vietnam Administrations were objected in view of existing and planned INSAT satellite networks.

Coordination requests (CR/Cs):- Frequency assignments published in BR IFIC in respect of satellite networks of Russia, Japan, China, UK, Vietnam, Korea, ISRAEL, LUX, Kazakhstan, Holland, Sweden, Singapore, USA, UAE, Azerbaizan, China, France and PNG Administrations were objected in view of existing and planned INSAT satellite networks.

Frequency notices for registration (Part I-S):- Frequency assignments published in BR IFIC in respect of satellite networks of China, Russia, Italy, Japan, UK, Turkey, Japan, Nigeria, Italy, UAE, Australia and Canada Administrations were objected in view of existing and planned INSAT satellite networks.

FSS Plan as per Appendix-AP30B:- Frequency assignments in respect of satellite networks of Belarus, Israel, Bangladesh, China, ISRAEL, Holland, Russian, France, PNG and Russian Administrations were objected in view of existing and planned INSAT satellite networks.

BSS Plan as per Appendix-30/30A:- Frequency assignments in respect of satellite networks of PNG, Holland, ISRAEL, Luxemburg and China Administration were objected in view of existing and planned INSAT satellite networks.

4.4.4 Conferences

National Preparations, participation and follow-up action for various international and regional conferences under the aegis of International Telecommunication Union (ITU) and Asia-Pacific Telecommunity (APT) were undertaken to protect national interests especially in the context of spectrum management and radio communication related matters.

4.4.5 World Radiocommunication Conference 2015 (WRC-15)

National Preparatory Committee has been constituted for WRC-15. NPC will coordinate and harmonise the views of stakeholders to finalise national viewpoints on various agenda items of WRC-15.

4.4.6 APT Preparatory Group -2015

The regional coordination in respect of Agenda items of WRC-12 are also undertaken by APG -2015. In this connection WPC Wing Officers attended first meeting of APG -2015 held in Vietnam.

4.4.7 National Frequency Allocation Plan (NFAP)

National Frequency allocation plan is a policy document which provides basis of development, manufacturing and spectrum utilisation activities in country, both for Government and private sector. NFAP is revised generally every two years. At Present NFAP-2011 is in force.

NFAP Review/ Revision Committee has been constituted to review the NFAP-2011.

4.4.8 Project Implementation

Actual achievements from April to December 2012

- Arbitration Tribunal for settlement of disputes relating to NRSMMS Project between M/s HFCL, India and WPC Wing, Department of Telecom, Ministry of Communications & IT has been setup. The Tribunal heard the matter four times up to December 2012 and it is still under consideration of the Tribunal.

- The case for repairing of UPS unit installed for ASMS server and maintenance of V/UHF MMS vehicles have been processed and repairing work has also been done.

Anticipated achievements from January to March 2013

- Follow up of Arbitration
- Monitoring of maintenance of facilities installed under NRSMMS project
- Making spill over payments, to the Contractors as decided by Arbitrator

Achievements of WPC Wing

Achievements	April-December 2012	Anticipated achievement during Jan-March 2013
1.1 Radio Frequency Spectrum Management		
• New Radio Frequency authorized to various users	9691	3033
• Frequency assignments intimated to Radio-communication Bureau of ITU for registration	150	50
• Radio Frequency Assigned for visits of VVIPs	45	08
• SACFA (Standing Advisory Committee on Frequency Allocations) meeting held	01	01
• Inter-departmental meetings held	10	06
• Sites cleared for new wireless stations	1,60,608	54,000
1.2 Wireless Licences Issued		
• No. of Import Licences Issued	2190	605
• No. of Licences issued to new Wireless Stations	83,142	5366
• No. of Licences Renewed (for Wireless Stations)	60491	19318

Achievements	April-December 2012	Anticipated achievement during Jan-March 2013
1.3 Certificate of Proficiency (COP) Examination/Licences		
• No. of COP Examination conducted	41	13
• No. of candidates admitted	13025	4780
• No. of Licences issued	2703	1043
• No. of Licences renewed	417	200
• No. of Licences issued to New Radio Amateur Stations	240	40
• No. of Licences renewed for Old Radio Amateur Stations	230	60

4.5 Wireless Monitoring Organisation

Wireless Monitoring Organisation continues to provide interference-free wireless services in the increasingly crowded radio environment besides providing vital technical data for the introduction of new services such as 3G, BWA etc. to WPC Wing. Statistical performance data during first nine months of the current year i.e. 01-04-2012 to 31-12-2012 and anticipated performance during 01-01-2013 to 31-03-2013 is as given below:-

S. No.	Particulars	Actual achievements during 01-04-2012 to 31-12-2012	Anticipated achievement during 01-01-2013 to 31-03-2013
1.	Monitoring Assignments Handled.	8303	2760
2.	No. of Wireless Transmission monitored.	88166	29300
3.	Technical assistance to users to maintain their operation within specified standards.	395	130
4.	Infringements communicated to various wireless users for remedial action.	1786	590
5.	Channel days utilized for Radio Monitoring.	4492	1500
6.	No. of Wireless Stations Inspected.	1646	550
7.	No. of Radio Noise measurements.	308322	50000

S. No.	Particulars	Actual achievements during 01-04-2012 to 31-12-2012	Anticipated achievement during 01-01-2013 to 31-03-2013
8.	No. of high priority interference complaint resolved.	95	50
9.	No. of standard interference complaint resolved.	3	5
10.	Man days devoted for high level technical work.	356	120
11.	No. of training courses conducted.	06	02
12.	No. of man days for training.	521	200

4.5.1 Radio Monitoring — a regulatory and treaty requirement

Radio monitoring, a regulatory and treaty requirement, is carried out by the Wireless Monitoring Organization of the Wireless Planning & Co-ordination Wing (WPC Wing), Ministry of Communications and IT, for the Government of India. It is essentially technical in nature and its broad objectives are derived from the international treaty document — *Radio Regulations* of the *International Telecommunication Union*.

4.5.2 Major functions of Wireless Monitoring Organisation (WMO)

The major functions of the WMO are as under:

- Resolution of the harmful interference;
- Monitoring for identification of frequency sub-bands for introduction of new services and/or for additional allocation to existing services;
- Monitoring for spectrum recovery — unused/ under-used frequency authorizations;
- Monitoring for ensuring adherence to licensing conditions;
- Monitoring / measurements for sharing studies;
- Assistance to domestic wireless users;
- Assistance to foreign administrations;
- Participation in special monitoring campaigns of the International Telecommunication Union;
- Measurements on radio emissions (intentional & non-intentional) for the possible introduction of new radio communication standards, and also for studying the EMC compatibility of the proposed new installations;
- Inspection of licensed installations; and
- Monitoring of space emissions to protect authorized satellite transmissions.

4.5.3 Challenges before WMO

- The increasing dependence of the society (the Government and the public alike) on the wireless communications demands WMO to ensure interference free radio communication environment. Therefore, WMO's primary focus, at present, is on public mobile radio communication services, public broadcasting services and safety-of-life services. WMO is earnestly gearing up its resources — manpower and machine-power — to ensure that these services continue to operate in interference-free environment. The primary reason for the interference protection to these services lies in their critical importance to the society as a whole. With respect to public mobile cellular service, WMO has twin objectives: (i) to identify and eliminate the sources of interference occurring due to a multitude of reasons, and (ii) to find unused spectrum for expansion of existing 2G services and for the 3G services. In so far as public broadcasting is concerned, its transmissions have been found to be affecting aeronautical mobile communications (civil aviation) and also infringing licensing parameters. To address the needs of such crucial services, WMO is in the process of procuring custom-designed radio monitoring products. Beside the service-aspect of radio monitoring, WMO has to ensure the quality of the spectrum.

- After having completed all the formalities, six new Wireless Monitoring Stations have been established at Bhubaneswar, Dehradun, Lucknow, Patna, Raipur & Vijayawada under 11th Five Year Plan (2007-12). One technical staff has been posted at each of six new monitoring stations to procure the necessary facilities for running the office. The technical infrastructure for these six additional Wireless Monitoring Stations would more effectively address the monitoring needs of public mobile and broadcasting services than what is currently available to other Wireless Monitoring Stations. To this end, WMO has initiated the process of finalizing tender document after the necessary approval by competent authority for the procurement "Six Vehicle mounted Monitoring Terminals with Portable Monitoring equipments and network analysis and coverage measurement equipments". The expected cost of these facilities is about `28.0 crore and the procurement is to be effected in 2013-14.

- The case for the procurement of land for the new Wireless Monitoring Stations was taken up with the respective State Governments in 2007. With continuous persuasion, WMO has already procured land at Bhubaneswar, Dehradun & Raipur from the respective State Governments for establishing Wireless Monitoring Stations. WMO is also pursuing the matter for transfer of spare land/assets with BSNL at WMS's Bangalore, Hyderabad, Ranchi and Patna.

- WMO effectively and efficiently addresses new monitoring challenges emerging from the increasingly crowded radio frequency spectrum. WMO has taken steps to introduce new technologies and capacity-building. As for new technologies, procurement of software and hardware has already been initiated. Intensive training on monitoring as well as information technology is aimed at capacity-building. These two aspects are being jointly handled by the Monitoring Headquarter and Training & Development Centre, New Delhi.

- Satellite Monitoring Earth Station at Jalna (Maharashtra) continues the monitoring of signals from all satellites located in the Geo-arc of interest to India. Its measurement functionality is planned to be enhanced in the near future.

- Wireless Monitoring Stations have started functioning from the newly constructed buildings at Bhopal & Visakhapatnam. The construction of the office buildings is in progress at WMSs Jallandhar, Mangalore and Siliguri. Construction of office building of Wireless Monitoring Station, Mangalore is in completion stage. The land dispute in respect of WMS Goa has been resolved with the intervention of Hon'ble Chief Minister of Goa. WMO is initiating action to construct new office building for WMS Goa.

The review of the performance for the year 2011-12 and 2012-13 (up to December 2012) is placed at **Annexure - "N"**.

4.6 Universal Service Obligation Fund:

The New Telecom Policy 99 (NTP-99) envisages provision of access to basic [word basic deleted vide Indian Telegraphs (Amendment) Rules 2006] 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.

In keeping with NTP-99, recommendations of TRAI on the issues relating to the USO were sought. Based on the decisions taken on the recommendations, the Universal Service Support Policy (USSP) was framed. The USSP came into effect from 01-04-2002. At present, the USL is 5% of the Adjusted Gross Revenue (AGR) earned by all the operators except pure value added service providers like voice mail, email etc.

The Indian Telegraph (Amendment) Act 2003 giving statutory status to USOF was passed by both houses of the Parliament in December 2003. Deemed to have come into force from 1st April 2002, the Fund is to be utilized exclusively for meeting the USO and the balance to the credit of the Fund shall not lapse at the end of the financial year. Credits to the fund shall be through Parliamentary approval. The rules for administration of the fund have also been notified on 26-03-2004.

Scope of Support from USOF:

As per the Indian Telegraph (Amendment) Rules, 2004 (and subsequent amendments in 2006 and 2008), the scope of USOF activities includes:

Stream-I	Public Access Telephones
Stream-II	Provision of Household Telephones in rural and remote areas
Stream-III	Creation of infrastructure for provision of Mobile services in rural and remote areas
Stream-IV	Provision of Broadband connectivity to villages in a phased manner
Stream-V	Creation of General Infrastructure in rural and remote areas for development of telecommunication facilities
Stream-VI	Induction of New Technological Developments in the telecom sector in rural and remote areas

Implementation status

A. Public Access.

(I) Village Public Telephones

As on 31.12.2012, 5,81,572 villages i.e. 97.97% of the Census 2001 inhabited revenue villages have been covered with Village Public Telephones (VPTs) with subsidy support from USO Fund.

BSNL has submitted that VPTs are likely to be provided in remaining inhabited revenue villages in the year 2013 through on-going USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

USOF Scheme for VPTs in newly identified uncovered villages as per Census 2001:

Reconciliation of the VPTs working in the inhabited villages as per Census 2001 was carried out taking into account the existing VPT and those provided under Bharat Nirman. All the remaining 62,443 inhabited villages as on 01.10.2007 as per Census 2001 irrespective of criteria of population, remoteness, accessibility and law & order situations have been included for provision of VPTs with subsidy support from USO Fund under this scheme. Agreements in this regard were signed with BSNL on 27.02.2009. As per the terms and conditions of the agreement the VPTs installed between the periods 01.10.2007 to 26.02.2009 are also eligible for subsidy support.

The targets of the scheme are being reconciled considering the left out villages of VPT Schemes of Bharat Norman-I and MARR replacement, additional VPTs already approved by USOF and VPTs already dropped by USOF. BSNL has been asked to furnish the details in this respect.

BSNL has provided **51,074 VPTs** under the scheme till 31.12.2012. As per MIS of BSNL, 3425 villages have been provided with VPTs facility by Private Service Providers.

(II) Provisioning of VPTs under Bharat Nirman-I

Agreements were signed with BSNL in November 2004 to provide subsidy support for provision of VPTs in 62,302 uncovered villages in the country excluding those villages having population less than 100, those lying in deep forests and those affected with insurgency.

The provision of VPTs in these villages has been included as one of activities under Bharat Nirman Programme. 62,101 VPTs have been provided under this scheme till the closure of rollout period on 31.08.2012. As per MIS of BSNL 62135 VPTs have been provided till 31.12.2012.

Remaining villages of the scheme would be provided with VPT facility under USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

(III) Replacement of MARR based VPTs (MARR-A & MARR-B)

Agreements were signed with M/s BSNL in the year 2003 for replacement of 1,85,121 number of VPTs with reliable technologies, which were earlier working on Multi Access Radio Relay (MARR) technology and installed before 01.04.2002. These included 47,075 MARR VPTs already replaced before 30.06.2003 (MARR-B) and 1,38,046 MARR VPTs to be replaced from 01.07.2003 onwards (MARR-A).

A total number of **1,84,794 MARR VPTs (99.83%)** have been replaced till the closure of the scheme on 30.06.2012. Remaining villages of the scheme would be provided with VPT facility under USOF scheme of VPTs in newly identified uncovered villages as per Census 2001.

(IV) Provision of Rural Community Phones (RCPs)

Agreements were signed on 30.09.2004 for providing 40,694 Rural Community Phones (RCPs) [BSNL: 21,958, RIL: 18,736] in villages with population more than 2000 and not having PCO facility. All of these 40694 RCPs have been provided.

B. Shared Infrastructure Support (Towers & Mobile Services)-Phase-1

A scheme has been launched by USO Fund to provide subsidy support for setting up and managing 7,353 infrastructure sites/ towers in 500 districts spread over 27 states for provision of mobile services in the specified rural and remote areas, where there was no existing fixed wireless or mobile coverage. Villages or cluster of villages having population of 2000 or more and not having mobile coverage were taken into consideration for installation of the tower under this scheme.

The agreements effective from 01.06.2007 were signed with the successful bidders in May 2007, which are valid till November, 2013.

As on 31.12.2012, 7,310 towers i.e. about 99.42% have been set up under this scheme. The infrastructure so created is being shared by three service providers for provision of mobile services. As on 31.12.2012, 16,023 BTSs (Base Transceiver Stations) have been commissioned by Service Providers at these towers for provisioning of mobile services.

C. Rural broadband Schemes

The Indian Telegraph Rules have been amended, and stream IV has been added under the title "Provision of broadband connectivity to villages in a phased manner" to bring provisioning of broadband connectivity to the **rural areas** under the purview of the USOF.

i) **Rural Wireline Broadband Scheme**

USOF has signed an Agreement with BSNL on January 20, 2009 under this Scheme which was launched to provide wire-line broadband connectivity to rural & remote areas by leveraging the existing rural exchange infrastructure and copper wire-line network. This scheme is being implemented at pan-India level. The objective is to make the rural and remote areas broadband enabled by facilitating the service providers in creating Broadband infrastructure. The speed of each of the broadband connections

shall be at least 512 kbps always on, with the capability to deliver data, voice and video services in the fixed mode. The rural broadband connectivity will cover Institutional Users, such as Gram Panchayats, Higher Secondary Schools and Public Health Centres, as well as Individual Users, and located in the villages.

Under this scheme, BSNL will provide 8,88,832 wire-line Broadband connections to individual users and Government Institutions and will set up 28,672 Kiosks over a period of 5-years, i.e., by 2014. The subsidy disbursement is for (i) broadband connections, Customer Premises Equipment (CPE), Computer/Computing devices (ii) setting up of Kiosks for public access to broadband services. The estimated subsidy outflow is Rs. 1500 crore in 5 years' time that includes subsidy for 9 lakh broadband connections, CPEs, computers/computing devices and Kiosks.

Under this scheme, as of August 2012, a total of 3,91,245 broadband connections have been provided and 10076 kiosks have been setup.

ii) **Rural Public Service Terminals (RSPT) Scheme.**

A Memorandum of Understanding (MoU) has been signed with BSNL for subsidy support from USO fund for Provision of Broadband enabled Rural Public Service Terminals (RPSTs) to eligible women's SHGs on pilot basis in the states of HP & Rajasthan. BSNL shall provide an RPST to one eligible SHG from each of its eligible rural wire-line exchanges under the MoU on agreed terms and conditions with subsidy support from USO Fund. The RPST shall be capable of providing value-added services (VAS) as under:

(i) Banking services such as cash withdrawals and remittances whereby the RPST franchisee acts as a banking

(ii) Facilitation of Government disbursements/transactions (NREGA, Pension, PDS etc.)

(iii) Railway, airline and bus ticketing, mobile top-ups, utility bill payments, etc. which will generate additional revenue for the SHG

(iv) Retailing airtime (PCO services)

(v) Retailing of life, general and micro insurance services such as crop, cattle, health and home insurance.

At present 150 RPSTs (100 in Rajasthan and 50 in HP have been provided under this scheme.

(D) Optical Fibre Network Augmentation, Creation and Management of Intra- District SDHQ-DHQ OFC Network in service area of Assam:

This Scheme has been launched to provide sufficient back-haul capacity to integrate the voice and data traffic from the access network in the rural areas to their core network by strengthening the OFC network. This scheme considers OFC Network augmentation between the blocks' HQ and Districts' HQ to begin with.

USOF, through this Scheme, shall provide subsidy support for augmentation, creation and management of intra-district SDHQ-DHQ OFC Network on the condition that it will be shared with other Telecom Operators at the rates prescribed in the Agreement. Assam has been taken up first for implementation. The tender for Assam was floated on 30.10.2009 and BSNL had been declared successful at the subsidy quote of Rs. 98.89 crore and subsequently, an Agreement has been signed with BSNL on 12.02.2010 to implement the scheme in Assam.

Salient Features of the Scheme: This OFC Scheme would be undertaken on BOO model, i.e. build, operate & own basis, and accordingly, BSNL would build, operate, own and manage all the equipment/infrastructure for the provisioned intra-district augmented/created OFC Transport network to connect 354 total locations in Assam in total 27 Districts.

All locations are to be connected on physical OFC Ring Route(s) with the DHQ node ensuring the cable route diversity and ring capacity of at least 2.5 Gbps, in all districts of ASSAM within 18 months from the date of signing of the Agreement. The Agreement shall be valid for a period of seven years from the effective date.

At least 70% of the subsidized bandwidth capacity, created under the scheme, shall be shared with the licensed service providers in the area of ASSAM at a rate not more than 26.22% of the current TRAI ceiling tariffs.

As of December 2012, about 260 nodes have been installed (Out of 354) under the current scheme.

E. Pilot Projects

Solar Mobile Charging Facilities

TERI project for Solar Mobile Charging Stations: An Agreement was signed with TERI in April 2010 for providing mobile charging stations in 5000 villages. Mobile charging stations have been established in 1900 villages by TERI till the expiry of the agreement in April 2012.

F. DISBURSEMENT STATUS

(i) Rs. 1687.96 Crore was disbursed during the financial year 2011-12 against the budgetary allotment of Rs 1700 Crore (RE).

(ii) A budgetary allocation of Rs 3000 Crore was received for the financial year 2012-13 (BE) for various USOF activities as proposed. RE 2012-13 has been reduced to Rs. 625 Crore only.

(iii) A review of performance for the year 2011-12, first nine months FY 2012-13 and projected performance for the remaining three months of FY 2012-13 is appended as Annexure "O".

4.7 PUBLIC SECTOR UNDERTAKINGS

4.7.1 BHARAT SANCHAR NIGAM LIMITED

4.7.1.1 BSNL has introduced cellular mobile service (GSM based) from October 2002 and has provided 970.93 lakh GSM connections till 31.12.2012.
3G services were launched commercially on 27th February 2009 in selected cities and the same is available in 1200 cities as on 31.12.2012

4.7.1.2 BSNL as an Internet Service Provider (ISP) provides a full range of internet services including dial up internet services. All the wireline telephone connections are enabled for Dial up Internet services

4.7.1.3 In pursuance to the Broadband Policy 2004 of the Government, BSNL introduced Broadband Services by the name "Data One" in January 2005 and has provided 9.91 lakh wireline broadband connections as on 31.12.2012. BSNL is also providing wireless Broadband service using 3G, Wi-Max & EvDO technologies.

4.7.1.4 BSNL has introduced a number of value added services both on Broadband and 3G. A few of them are listed below:

a. Mobile Banking services with National Payments Corporation of India (NPCI) on USSD Channel for No frill accounts under Financial Inclusion Project and Adhaar enabled Payment system.
b. VAS Retailing service i.e. Selling of VAS through Retail channel
c. 3G Video chat services
d. Range of M-Governance services on USSD & IVR platform through Dept. of IT.
e. Mobile Wallet & associated services with Banks.
f. Mobile Money Transfer Service to cover other Postal Circles as per requirements of Dept. of Posts.
g. Location Based Services.

A) Targets: The physical targets for the year 2012-13 (RE) are as follows:

S. No.	Parameter	Target 2012-13	Achievement (up to 31.12.2012)
1	Addition in GSM capacity (in lakh lines)	75	15.79
2	Addition in Broadband Capacity (in lakh ports)	3.2	7.14
3	Addition in OFC (in RKMs)	30,000	7016
4	GSM Mobile connections (in lakhs)	100	25.84
5 (a)	Broadband connections (Wire line) (in lakhs)	30	9.91
(b)	Broadband connections(Wireless)* (3G,EVDO,Wimax) (in lakhs)	45	0.27

Note: * The achievement indicated under broadband (wireless)is the achievement for broadband given on EVDO & WiMax only as the figure for broadband connections on 3G is not available.

The review of the performance for the year 2011-12 and for the year 2012-2013 (up to December 2012) is at **Annexure – "P"**.

B) **Financial Outlay**: The financial outlay in respect of BSNL is given below:

(` in Crore)

	Year	Outlay
BE	2012-13	9086.22
RE	2012-13	5408.85
BE	2013-14	5592.99

BSNL meets its requirement of development from its Internal Resources (IEBR), apart from the support given by USOF towards operation and maintenance of VPTs including replacement and provision of rural DELs.

4.7.2 MAHANAGAR TELEPHONE NIGAM LIMITED

4.7.2.1 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. MTNL's digital network provides host of supplementary services like Call Waiting, Call forwarding etc. to the customers.

The last decade and a half has been an eventful period in the existence of MTNL. There has been all-round development and growth and improved operational efficiency. In the present scenario, the Company is facing competition from other private telecom operators and is successfully adapting to new regulatory environment To meet the challenge of competition, the Company has taken various initiatives, which include re-structuring at operational level as well as broad basing the service portfolio being offered by the company. As the company has limited area of operation the emphasis has been placed on addition of new and value added services In addition to this the company is giving major thrust on the expansion of existing mobile and broadband services in both Delhi and Mumbai to provide high speed internet, high quality video and new generation wireless services.

4.7.2.2 Having achieved the telephone on demand situation in both the cities, the main thrust is on the expansion of existing mobile and broadband services in both Delhi and Mumbai to provide high speed internet, high quality video and new generation wireless services. Action will also be taken to generate fresh demands by providing quality services, better customer care & satisfaction, introduction of new services / schemes and innovative marketing strategies.

Targets: The physical targets for the year 2011-12 are as follows:

S. No.	Items	Annual Target	Achievement
1.	Net new connections including WLL, Cellular and broadband connections	7,00,000	4,45,026
2.	New Switching Capacity addition including capacity for WLL GSM, NGN ,IMS	0	0
3.	Deployment of DSLAM / FTTH	2,30,000	9,220
4.	Optical Fibre Cable (in Fiber Km)	60,000	38,478.98

The review of the performance is placed at **Annexure –"Q"**.

4.7.3 ITI LIMITED

- The paid-up Share Capital of the Company as on 31.12.2010 is ` 588 Crores, consisting of ` 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.

- The provision for payment of compensation of losses for the Srinagar Unit of ITI has been made in the non-plan Budget of DoT. A sum of ` 7.10 crore has been provided for RE 2012-13 and ` 7.00 crore has been provided in the BE 2013-14.

- Based on the seeking of Financial Assistance of ` 4156.79 crore, Draft Rehabilitation Scheme (DRS) was prepared by operating Agency (SBI) and submitted to BIFR which has been approved by BIFR in its hearing on 27th November 2012.

- Token budgetary support of Rs. 0.01 cr. has been provided under Plan for the year 2013-14.

4.7.4 TELECOMMUNICATION CONSULTANTS INDIA LIMITED

The recent volatile global economic and business environment has shaken business confience of the industry and pace at which the economy recovers will be significant for the global prospects for coming years. Despite global slowdown, TCIL faced new challenges with great determination and was able to maintain its overall profitability and achieved turnover of ` 680.70 crore. The standalone profit before tax increased to ` 19.16 crore as against ` 19.01 crore of previous year.

Orders secured during the year 2011-12 were of ` 1309 crore as against target of ` 900 crore and previous year's figure of ` 850 crore.

Company has developed a long term strategic plan to accomplish continued advancement and expansion. The strategy followed by the company to achieve the same is as follows:

i) Expanding the operations in Information Technology, Telecom as well as Civil infrastructure sector both in India and abroad.
ii) Acquiring State-of-the-Art Technology on a continuous basis and maintain Leadership.
iii) Enter areas of cost – effective network technologies for building new Telecom & Information Technology networks and upgrading legacy networks.
iv) Develop Telecom & Information Technology Training infrastructure in countries abroad.

The targets for turnover including other income have accordingly been kept as under:-

(` in crores)

2012-13	2013-14	2014-15	2015-16
1015	1071	1200	1400

The performance highlights were as under:-

A. Standalone

(` in crores)

Particulars	2010-11 Actual	2011-12 RE	2011-12 Actual
Turnover	850.90	921.57	680.79
Profit before Tax	19.01	20.48	19.16
Profit after Tax	13.58	13.52	8.03
Foreign Exchange Repatriation	11.01	20.00	13.77
Order Booking	1136.00	900.00	1309.00
Net Worth	420.42	428.89	426.58

B. Consolidated

(` in crores)

Particulars	2010-11 Actual	2011-12 RE	2011-12 Actual
Turnover including other income	1833.00	2034.81	1751.79
Profit before Tax	219.00	314.34	230.30

Order Booking 2012-13

During the year 2012-13, till August 2012, the Company has secured orders of over ` 146.00 crore. The major orders booked during the year are as under:

- Laying of Electric Cables for Saudi Electric Company on turnkey basis valuing ` 18.00 crs.
- Construction of ESIC dispensary at Mira Road, Thane, Maharashtra valuing ` 15 crs.
- Multi order contract for civil engineering and cable works valuing ` 5.59 crs. in Mauritius.
- Supply of OFC and other accessories to NCELL Pvt. Ltd. valuing ` 7.78 crs. in Nepal
- APO from BSNL for Supply & Installation of Digital Satellite Phone Terminal valuing ` 38.00 crs.

- Work of AMC for NIB-II P-3 Year-2 Project from BSNL valuing ` 10.08 crore and Add on Project valuing ` 16.81 crs.
- Work of shifting Public Utilities and Sewer Project in PARIKARMA under beatification project, Nathwara valuing ` 9.75 crs.
- Implementation of Crime & Criminal Tracking Network System (CCTNS) valuing ` 16.95 crs.

Joint Venture

TCIL has the following Joint Venture companies:

ICSIL: Intelligent Communication Systems India Ltd.

TBL: TCIL Bellsouth Ltd.

TTL: Tamilnadu Telecommunications Ltd.

UTL: United Telecom Ltd. in association with MTNL, VSNL and Nepal Ventures Pvt. Ltd (NVPL).

BHL: Bharti Hexacom Ltd.

TSCL: TCIL Saudi Co. Ltd.

TCNL

TCIL Oman Ltd

TSCNL is presently not in operation while ICSIL and TTL is presently a subsidiary by virtue of TCIL having majority of Directors on its Board. On consolidating the projected results of these companies, Consolidated Profit & Loss position shall be as under:-

Consolidated financial results of JV companies:

(` in Crore)

Joint Venture Company	Turnover		Profit		TCIL's Share			
					Turnover		Profit	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
TCIL	1,001.01	1,050.82	21.00	22.00	1,001.01	1,050.82	21.00	22.00

ICSIL	48.00	60.00	4.80	6.00	48.00	60.00	4.80	6.00
TBL	1.32	1.75	0.61	0.59	0.59	0.79	0.27	0.26
TTL	22.99	43.95	(6.66)	(1.72)	22.99	43.95	(6.66)	(1.72)
Bharati Hexacom	3,966.90	4,165.25	1,036.70	1,080.50	1,190.07	1,249.58	311.01	324.15
UTL	80.00	100.00	10.00	15.00	21.33	22.66	2.67	4.00
Total	**5,120.22**	**5,421.77**	**1,066.45**	**1,122.37**	**2,283.99**	**2,431.79**	**333.09**	**354.70**

4.7.5 DOT Schemes

4.7.5.1 OFC based network for Defence Services

The Cabinet Committee on Infrastructure (CCI) in its meeting held on 3rd December 2009 approved the following:

- Approval of setting up of an alternate exclusive, dedicated OFC based communication network for Defence services for release of spectrum
- Financial approval of Rs.9175.16 crore (Rs.1077.16 crore for Air Force and Rs.8098.00 crore for Army & Navy) for laying of alternate communication network for Defence Services in a period of 36 months and approved budgeting of the same in the budget of DoT
- The assets created will belong to DoT during the currency of the project and after the completion of the Project these assets will be transferred to Ministry of Defence as book transfer

Further, the CCI, in its meeting held on 3rd July 2012, has given the financial approval of Rs.5236 crore over and above Rs.8098 crore, already approved by CCI on 03.12.2009, for laying of alternate communication network for Defence Services in a period of 36 months.

The Air Force part of the OFC network (AFNET) has been dedicated to the nation on 14.09.10 by Air Force with and the Project for Army and Navy has been started in 2010-11.

The details of the achievements under these projects for the years 2011-12 and 2012-13 (up to December 2012) are placed at **Annexure – "R".**

Annexure – L

TELECOMMUNICATION ENTINEERING CENTRE

Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
A. Core Activities							
1	New Generic Requirements, Interface requirements and Service Requirements	Preparation of new GRs / IRs	…	11		12	
2	Review of GRs/IRs	Revision of existing GRs/IRs	…	29		31	
3	Preparation of Test Schedule/ Test Procedure	Preparation of Test Schedule	…	31		43	
4	Type approval		…	Not Defined		8	
5	Interface Approval Issued		…	Not Defined		147	
6	Certificate of Approval		…	Not Defined		53	
B. Ongoing Project Activities							
1	NGN Lab	To carry out testing and certification of NGN complaint transport equipment	3.65				

TELECOMMUNICATION ENTINEERING CENTRE

Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
2	NE Region	Satellite Based Broadband Network in NE Region	0.35				
3	SAR Lab	To carry out testing and certification of Mobile equipment about Specific Absorption Rate (SAR)	2.64				
4	Procurement of EMF Measuring Instruments	EMF Testing	0.01				
	Total		**6.65**				

TELECOMMUNICATION ENTINEERING CENTRE
Performance for the year 2012-13 (up to December 2013)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
A. Core Activities							
1	New Generic Requirements, Interface requirements and Service Requirements	Preparation of new GRs / IRs		13		11	
2	Review of GRs/ IRs	Revision of existing GRs / IRs		24		18	
3	Preparation of Test Schedule/ Test Procedure	Preparation of Test Schedule		37		29	
4	Type Approval	Preparation of White Paper		Not Defined		3	
5	Interface Approval Issued			Not Defined		62	
6	Certificate of Approval			Not Defined		21	

TELECOMMUNICATION ENTINEERING CENTRE
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
B. Ongoing Project Activities							
1	NGN Labs	To carry out testing and certification of NGN complaint transport equipment	1.80				
2	SAR Lab	To carry out testing and certification of Mobile equipment about Specific Absorption Rate (SAR)					
3	Procurement of EMF Measuring Instruments	EMF Testing					
4	NE Region	Satellite Based Broadband Network in NE Region	0.20				
	Total		**2.00**				

Annexure – M

WIRELESS PLANNING CO-ORDINATION
Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
	National Radio Spectrum Management and Monitoring System (NRSMMS)	Spectrum Management and monitoring functions automated with a view to making spectrum management process more transparent, effective and efficient	9.00	Follow-up activities after Termination of Super High Frequency (SHF)	During 2011-12	1. The disputed matter referred to the Adjudication was completed during 20.06.201 to 28.06.2011. The Report of Adjudicator was not acceptable to the Department 2. The case for appointment of Arbitrators as per Contract provision has been finalized 3. Arbitration Tribunal for settlement of disputes relating to NRSMMS Project between M/s HFCL, India and WPC Wing, Department of Telecom, Ministry of communication & IT has been setup. 4. AMC has already been terminated. The maintenance work is being carried out by officers of WPC/WMO 5. The case for repairing of UPS unit installed for ASMS server and maintenance of V/UHF MMS vehicles have been processed	
		Total	**9.00**				

WIRELESS PLANNING CO-ORDINATION
Performance for the year 2012-13 (up to 31st December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	National Radio Spectrum Management and Monitoring System (NRSMMS)	Spectrum Management and monitoring functions automated with a view to making spectrum management process more transparent, effective and efficient	1.50	Follow-up activities after Termination of Super High Frequency (SHF)	During 2012-13	1. Arbitration Tribunal for settlement of disputes relating to NRSMMS Project between M/s HFCL, India and WPC wing, DoT has been set up. The Tribunal heard the matter four times by December 2012 and it is still under consideration of Tribunal. 2. The case for repairing of UPS unit installed for ASMS server and maintenance of V/UHF MMS vehicles have been processed and repairing work has also been done. 3. Case for finalization of contract to handover maintenance of ASMS to NIC is being processed	
		Total	**1.50**				

Annexure – N

WIRELESS MONITORING ORGANISATION
Performance for the year 2011-12

(` in Crore)

S. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	**Tech. Schemes** Creation of Project Implementation Unit (PIU)	To implement the schemes at S.No.3 & 4 given below	Nil		Timely Implementation of schemes at S.No.3 & 4 given below	N/A	Proposal was treated as withdrawn by Telecom Commission in 2009, due to deferment of proposal for scheme at 3.3 below. Proposed to be taken up in 2012-13.
2	Augmentation of Training Facilities	To procure technical literature/ development kits	Nil	Procurement of technical literature, software and hardware development kits		N/A	

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WIRELESS MONITORING ORGANISATION
Performance for the year 2011-12

(` in Crore)

S. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
3. Expansion of Monitoring Facilities							
3.1	Establishment of 6 additional Wireless Monitoring Stations (WMSs) at Bhubaneswar, Dehradun, Lucknow, Patna, Raipur & Vijayawada	To cover the uncovered states/ cities. Procurement of radio monitoring equipment & other technical infrastructure.	Nil			Nil	(i) Almost all administrative formalities having been completed, one technical personnel was posted at each new WMSs, to procure the facilities for running the office. (ii) Funds surrendered pending approval of Bid document for procurement of technical infrastructure by Wireless Finance division, DOT.

[contd…]

WIRELESS MONITORING ORGANISATION
Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
3.2	Regional Maintenance Centre (RMC)	To procure hardware & software for use in Integration & Testing of Monitoring Facilities	Nil	Nil	Nil	Nil	Dropped
3.3	Augmentation/ Up-gradation of Microwave Terminals MWT (1 GHz–40 GHz)	Procurement of 2 SHF monitoring facilities & 1 portable SHF facility up to 40 GHz	Nil		Nil	Nil	Dropped. There are legal issues involved with the SHF terminals, (originally to be supplied under the World Bank Project) pending decision. However, the recoveries against Liquidated damages charges have been made against the termination of SHF part of the project by encashing the Bank Guarantees as per the decision of the TC., WMO has again submitted the draft TC memo for subsequent approval by the TC.

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WIRELESS MONITORING ORGANISATION
Performance for the year 2011-12

(` in Crore)

S. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
3.4	Satellite Monitoring Earth Station, ISMES Jalna.	To renovate & replace existing antenna sub-assemblies	Nil	N/A	N/A	N/A	Dropped due to time/ budgetary constraints
4.	Augmentation/ Up-gradation of Wireless Monitoring Facilities	To up-grade monitoring facilities for 2G/3G monitoring set up, HF/VHF DSC eqpt.	2.50		N/A	N/A	Proposal for procurement of Spectrum Analyzers through DGS&D could not be pursued due to expiry of rate contract
	Total (A)		2.50				

[contd…]

WIRELESS MONITORING ORGANISATION
Performance for the year 2011-12

(` in Crore)

S. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
6	Civil works MH-5275/4552	Miscellaneous Civil works such as proc. of land, const. of office bldg, staff qtrs. & ancillaries..	10.00				(i) Construction of office buildings by CPWD, at WMSs Jalandhar, Mangalore & Siliguri in progress against expenditure sanctions worth Rs.14.66 crore issued over the period (ii) Claims worth Rs.90 lakh for const. of boundary wall at IMS Kolkata pending for want of clarifications (as per observations of WFD) from CPWD. (iii) Const. of staff quarters at ISMES Jalna in completion stage. (iv) Allotment of land for WMS Dibrugarh in North-East is under consideration of the State Govt. Acquisition of land for remaining existing /new WMS's from State Govts./BSNL under process.
	Total (B)		10.00				
	G. Total (A)+(B)		**12.50**				

[Contd…Annexure – N]

WIRELESS MONITORING ORGANISATION
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Technical Schemes						
1.1	**<u>Tech. Schemes</u> Mobile Monitoring, including Direction Finding, facility (proposed 12th FYP outlay 220 cr.): Procurement of:**	06 Nos. V/UHF vehicle-mounted mobile and portable monitoring, including Direction finding (DF) terminals for six new Wireless Monitoring Stations (WMSs) established in 11th FYP			Nil	Nil	The Bid document for the procurement of Six V/UHF terminals (vehicle-mounted and portable) for six newly created wireless monitoring stations at Bhubaneswar, Dehradun, Lucknow, Patna, Raipur & Vijayawada under 11th FYP was submitted to WPF in September, 2010, but is yet to be vetted. Following this, vetting by the legal group and the administrative approval will be sought and hence there is little likelihood of any substantial expenditure.
1.2		04 Nos. SHF Vehicle mounted & portable monitoring terminals			Nil	Nil	A draft T.C Memo for procurement of SHF Microwave Terminals is under consideration in the Ministry and hence there is little likelihood of any substantial expenditure.

[Contd…Annexure – N]

WIRELESS MONITORING ORGANISATION
Performance for the year 2012-13 (upto December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1.3	Mobile Monitoring, including Direction Finding, facility (proposed 12th FYP outlay 220 cr.): Procurement of	06 Nos. Network analyzers and coverage measurement equipments.		Nil	Nil	Nil	Pending approval of projects at S.No. 1.1 & 1.2 above, which are unlikely to be completed in the current F.Y, with little expenditure, if any, on them, in the current F.Y. Hence, WMO has submitted draft T.C memo for procurement of these equipments /items worth 48 crore along with proposals under scheme at S.No.2.1 to 2.5 below, which is under examination by WPF
1.4		Remote monitoring terminals		Nil	Nil	Nil	
1.5		03 Nos. HF transportable DF terminals		Nil	Nil	Nil	
1.6		12. Nos. V/UHF transportable DF terminals		Nil	Nil	Nil	
1.7		12 Nos. small sized operational vehicles available at DGS&D		Nil	Nil	Nil	
2.1	Specialised hardware/ software and auxiliary components (proposed 12th FYP outlay 80 cr. procurement of:	Standard Horn antennas (about 1 to 50 GHz)		Nil	Nil	Nil	Please refer remarks above.
2.2		Amplifiers (about 10 KHz to 50 GHz)		Nil	Nil	Nil	
2.3		1 No. spectrum-cum-vector signal analyzer (50 GHZ)		Nil	Nil	Nil	
2.4		Software for EB 200 receiver decoding HF emissions		Nil	Nil	Nil	
2.5		RF Switches, RF Filters, combiners, splitters, diplexers, etc. and add on		Nil	Nil	Nil	

		for software defined radio					

[Contd…Annexure – N]

WIRELESS MONITORING ORGANISATION
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
3	**Manpower requirement** Creation of Project Implementation Unit (PIU).	To implement the technical schemes.	@	N/A	N/A	Nil	Proposal will be submitted after approval of scheme at 1.1 above. @ Funds to be met from the proposed outlay for scheme at 1.1 above.
4	Misc. Expenses i.e. Salary, Office & Travel etc.	Expenditure under the different heads including salary in respect of 6 new WMSs .	0.50	N/A	N/A	N/A	Expenditure under the different heads including salary in respect of 6 new WMSs . Expenditure under the different heads including salary in respect of 6 new WMSs .
	Total (A)		**0.50**				

WIRELESS MONITORING ORGANISATION
Performance for the year 2012-13 (upto December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
	Civil Works Total (B)	Miscellaneous Civil works such as procurement of land, construction of office buildings, staff quarters & ancillaries.	3.00	It is difficult to physically quantify different Civil works under various stages of execution by CPWD.		Nil	(i) Construction of office buildings by CPWD at WMSs Jalandhar, WMS Siliguri & WMS Mangalore is under progress (ii)Settlement of claim worth Rs.90 lakh for const. of boundary wall by CPWD at IMS Kolkata pending for want of clarification from CPWD sought by WFD. (iii) Acquisition of land/ assets from BSNL for WMSs at Bangalore, Hyderabad, Patna & Ranchi under consideration by BSNL and (iv) Allotment of land for WMS Dibrugarh in North-East is under consideration of the State Govt. Therefore, WMO had sought Rs.5.00 crore to settle claims from CPWD, for ongoing const. works in R.E 2012-13, as against provisional allotment by MoF of Rs.3.00 crore.
	G. Total (A)+(B)		**3.50**				

Annexure - O

UNIVERSAL SERVICE OBLIGATION FUND
Performance during 2011-12 and 2012-13 (upto Dec. 2012)

(` in crore)

Sl. No.	Name of Activity	Total physical targets for the scheme		Physical outcome by 31-3-12 (Progressive)	Financial Year 2011-12		Financial Year 2012-13								Remarks
							Annual Targets				Actual Performance upto Dec. 12		Projected Performance from Jan'13 to March '13		
		Original	Revised		Financial Outlay	Physical Outcome	Financial Original	Financial Revised	Physical-Original	Physical-Revised	Financial	Physical	Financial	Physical	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Operation & Maintenance of VPTs	Note-1	Note-1		8.61		0	-0.08			-0.08		0.00		See Note -1
2	Replacement of MARR VPTs (Total)	182766	185121	184785 (DSPT -369)	138.98	115 (DSPT-1)	55.72	53.66	336 (DSPT - 46)	336 (DSPT - 46)	39.81	9 (DSPT-1)	13.85	Nil	See Note -2
3	Provision of RCPs	43409	40694		-0.76		1.40	0.06			-0.14		0.20	Nil	See Note -3
4	VPTs in Uncovered villages as per census 1991	66822	62302	62088 (DSPT -3755)	13.35	58 (DSPT reduced by 36)	10.80	6.02	214 (DSPT-0)	214 (DSPT-0)	3.43	47 (DSPT reduced by 12)	2.59	Nil	See Note -4
5	RDELs installed between 01.04.02 to 31.03.05	Note-5	Note-5		0.08		0.07	0.04			0.03		0.01		See Note -5

Annexure - O

UNIVERSAL SERVICE OBLIGATION FUND
Performance during 2011-12 and 2012-13 (upto Dec. 2012)

(` in crore)

Sl. No.	Name of Activity	Total physical targets for the scheme		Physical outcome by 31-3-12 (Progressive)	Financial Year 2011-12		Financial Year 2012-13								Remarks
							Annual Targets				Actual Performance upto Dec. 12		Projected Performance from Jan'13 to March '13		
		Original	Revised		Financial Outlay	Physical Outcome	Financial Original	Financial Revised	Physical-Original	Physical-Revised	Financial	Physical	Financial	Physical	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6	RDELs installed between 01.04.05 and 31.03.07 and (extended up to 31.3.2010)	Note 6.	Note 6.		57.88		2.80	1.73			1.11		0.62		See Note -6
7	Shared Infrastructure Support (Towers & Mobile services) [Phase-I]	7363	7353	7306	87.08	28	81.21	86.60	47	47	56.11	4	30.49	43	Annual Equated Financial Support towards installation & maintenance of towers and mobile services (See Note -7)
8	VPTs in the newly identified uncovered villages as per Census 2001	62443	62443	52833 (DSPT - 622)	20.57	1473 (DSPT-15)	38.84	19.60	9610 (DSPT - 2489)	9610 (DSPT - 2489)	1.83	1666 (DSPT-331)	17.77	7283 (Approx)	See Note -8
9	Support for Rural Wireline Household DELs installed prior to 01.04.2002	Note 9	Note 9		1270.62		0.00	0.00			0.00		0.00		See Note -9

Annexure - O

UNIVERSAL SERVICE OBLIGATION FUND
Performance during 2011-12 and 2012-13 (upto Dec. 2012)

(` in crore)

Sl. No.	Name of Activity	Total physical targets for the scheme		Physical outcome by 31-3-12 (Progressive)	Financial Year 2011-12		Financial Year 20121-13								Remarks
							Annual Targets				Actual Performance upto Dec. 12		Projected Performance from Jan'13 to March '13		
		Original	Revised		Financial Outlay	Physical Outcome	Financial Original	Financial Revised	Physical Original	Physical Revised	Financial	Physical	Financial	Physical	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
10	Wireline broadband connectivity in rural and remote areas	861459 BB connections and 27789 kiosks	888832 BB connections and 28672 kiosks	358975 BB connections & 9363 Kiosks	91.02	93037 connections & 5171 Kiosks	57.35	76.37	2.5 Lakh BB connections & 10000 Kiosks	2.5 Lakh BB connections & 10000 Kiosks	43.81	32270 BB connections & 713 Kiosks *	32.56	217730 BB connections & 9287 Kiosks	See Note-10
11	Solar Mobile Charging Stations	5000	5000	878	0.53	641	0.53	3.05	4122	4122	2.49	1022	0.56	Nil	See Note -11
12	Augmentation, creation & management of OFC Assam service area	OFC network augmentation between SDHQ & DHQ in Assam	OFC network augmentation between SDHQ & DHQ in Assam 354 OFC nodes to be installed	189	0	97	24.75	2.32	Augmented OFC NW in 27 districts	Installation of 165 OFC Nodes	0.77	71 OFC Nodes	1.55	25 OFC Nodes	Scheme launched on 12.2.10 & total 354 OFC nodes to be installed (See Note-12)

Annexure - O

UNIVERSAL SERVICE OBLIGATION FUND
Performance during 2011-12 and 2012-13 (upto Dec. 2012)

(` in crore)

Sl. No.	Name of Activity	Total physical targets for the scheme		Physical outcome by 31-3-12 (Progressive)	Financial Year 2011-12		Financial Year 2012-13								Remarks
							Annual Targets				Actual Performance upto Dec. 12		Projected Performance from Jan'13 to March '13		
		Original	Revised		Financial Outlay	Physical Outcome	Financial Original	Financial Revised	Physical Original	Physical Revised	Financial	Physical	Financial	Physical	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
13	National Optical Fibre Network (NOFN) For providing Broadband connectivity to 2,50,000 Village Panchayats in the country through extending existing Optical Fibre Network	Providing Broadband connectivity to 2,50,000 Village Panchayats in the country					2546.73	375.63			215.00		160.63		See Note-13
14	Augmentation, creation & Management of OFC network in NE-I & NE -II (Earlier titled as SAs other than Assam)	OFC network augmentation between SDHQ & DHQ	OFC n/w augmentation between SDHQ & DHQ in NE-1 & NE-II	Nil	0	Nil	77.60	0	Nil	Nil	0	Nil	0.00	Nil	Rollout yet to start.

Annexure - O

UNIVERSAL SERVICE OBLIGATION FUND
Performance during 2011-12 and 2012-13 (upto Dec. 2012)

(` in crore)

Sl. No.	Name of Activity	Total physical targets for the scheme		Physical outcome by 31-3-12 (Progressive)	Financial Year 2011-12		Financial Year 2012-13								Remarks
							Annual Targets				Actual Performance upto Dec. 12		Projected Performance from Jan'13 to March '13		
		Original	Revised		Financial Outlay	Physical Outcome	Financial Original	Financial Revised	Physical Original	Physical Revised	Financial	Physical	Financial	Physical	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
15	Rural Satellite Broadband Connectivity in rural and remote areas	Provision of broadband connectivity to specified rural & remote areas on satellite media (where terrestrial connectivity is not feasible)	600 Satellite BB connections	Nil	0	Nil	0.00	0.00	Nil	Nil	0	Nil	0.00	Nil	Scheme yet to be launched
16	Rural Wireless broadband connectivity to rural and remote areas	5000 Blocks	5.0 lakh villages	Nil	0	Nil	100.00	0.00	Nil	Nil	0	Nil	0.00	Nil	Scheme on hold due to conflict with rural rollout obligation of 3G/BWA bidders.
17	Sanchar Shakti	Provision of mobile Value Added Services to rural women's SHGs for a period of one year			0		2.20	0.000			0		0.00		Agreements have been signed for two projects on 05-10-2012.
	Total				1699.96		3000.00	625.00			388.17		288.83		

1) In RE 2012-13, a projection of Rs 2125 Cr. has been made, keeping in view of additional requirement of payment of Rs. 1500 Cr. to BSNL for sustainability of wireline connections provided prior to April 2012.
2) The physical numbers during the quarter represent the number of facilities for which subsidy is to be paid during the following quarters including those existing at the beginning of the quarter and eligible for subsidy.

3) Subsidy claims are received and disbursed in arrears after completion of the quarter in which the facilities are provided and/or remained operational.

4) The financial outlay figures are estimated and subject to actual disbursement in arrears, based on timely submission of claims by USPs and number of facilities actually provided and/or working.

*Till August 2012

Notes:

1. Financial outlay has been proposed on account of adjustments.

2. Financial outlay has been proposed for settlement of spill - over.

3. Financial outlay has been proposed for settlement of spill - over / adjustments.

4. Reconciliation have been carried out by M/s BSNL and the number of VPTs to be provided have been reduced from 66822 to 62302. Remaining villages are to be covered with VPTs Facility under scheme for VPTs in the identified uncovered villages as per census 2001.

5. Financial outlay has been proposed for settlement of spill - over/ adjustments.

6. Financial outlay has been proposed on account of adjustments /spill - over.

7. The total number of towers have been reduced from 7363 to 7353 as a result of dropping/addition of towers as on 31.12.2011 . Roll out of the scheme is likely to be completed within the current financial year. However, remaining towers, if any, may be provided in 2013-14.

8. Agreements were signed on 27.02.2009 for installation of about 62443 VPTs. The target of the scheme are being reconciled considering the left out villages of VPTs Schemes of Bharat Nirman - 1 and MARR replacement - additional VPTs already approved by USOF and VPTs already dropped by USOF. Details in this respect are awaited from BSNL.

9: Subsidy support of Rs. 1500 Crore to BSNL for one w.e.f. 18-07-2011 for sustainability of wireline connection provided prior to April 2012 is under consideration.

10: An Agreement was entered into with M/s BSNL on 20-01-2009 for provision of broadband connectivity to individual users and Govt. Institutions in rural and remote areas on wireline media.

11. SMCF. Agreement for installation of Solar Mobile Charging Stations in 5000 villages in the country was signed with TERI on 29.04.2010. Mobile Charging stations have been established in 1900 villages by TERI till the expiry of the Agreement up to April 2012.

12: Augmentation, creation & management of OFC Network with higher band width to SDHQ/Blocks in Assam.

13:Plan to connect all the 2,50,000 Gram Panchayats in the country through optical fibre utilizing existing fibre network of PSUs viz. BSNL, RailTel and Power Grid and laying incremental fibre wherever necessary, and will be completed in a time period of two years.

Abbreviations used:

VPT: Village Public Telephone	MARR VPT: Multi Access Radio Relay VPTs	RCP: Rural Community Phones	USP: Universal Service Provider
DELs: Direct Exchange Lines	DSPT: Digital Satellite Phone Terminal	OFC : Optical Fibre Cable	SMCF: Solar Mobile Charging Facilities

NOFN: National Optical Fibre Network

Annexure – P

BHARAT SANCHAR NIGAM LIMITED
Performance for the year 2011-12

(` in crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 *	Quantifiable Deliverables (Physical Targets)**	Actual Achievement (Physical) during 2011-12	Processes/ Timelines	Remarks / Risks / Constraints
1(a)	Mobile	To provide Mobile connections on demand	Annual Outlay for 4269 cr.	Total 200 lakh	82.42 lakh		
			1st Qtr. 427cr.	1st Quarter 50 lakh	21.62 lakh		
			2nd Qtr.854 cr.	2nd Quarter 50 lakh	24.81 lakh		
			3rd Qtr. 1281 cr.	3rd Quarter 50 lakh	15.17 lakh		
			4th Qtr. 1707 cr.	4th Quarter 50 lakh	20.82 lakh		
1(b)	Wireline & WLL	To provide DELs on demand	Annual Outlay for 1280 cr.	Total 0 lakh	(-) 43.19 lakh		
			1st Qtr. 128 cr.	1st Quarter 0 lakh	(-) 7.67 lakh		
			2nd Qtr. 256 cr.	2nd Quarter 0 lakh	(-)14.62 lakh		
			3rd Qtr. 384cr.	3rd Quarter 0 lakh	(-) 12.24 lakh		
			4th Qtr. 512 cr.	4th Quarter 0 lakh	(-) 08.66 lakh		
2	Broadband	To provide Multiplay i.e voice, video & data on demand and allied services	Annual Outlay for 1191 cr.	Total 75 lakh ***	14.37 lakh		
			1st Qtr. 119 cr.	1st Quarter 18.75 lakh	3.27 lakh		
			2nd Qtr. 238 cr.	2nd Quarter 18.75 lakh	3.96 lakh		
			3rd Qtr. 357 cr.	3rd Quarter 18.75 lakh	3.68 lakh		
			4th Qtr. 477 cr.	4th Quarter 18.75 lakh	3.46 lakh		

Annexure – P (contd.)

BHARAT SANCHAR NIGAM LIMITED
Performance for the year 2011-12

(` in crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 *	Quantifiable Deliverables (Physical Targets)**	Actual Achievement (Physical) during 2011-12	Processes/ Timelines	Remarks / Risks / Constraints
3	TAX	To provide connectivity for additional exchange equipment & provide POIs on demand	Annual Outlay for 273 cr.	Total 84 KCTs	0 KCTs		
			1st Qtr. 27cr.	1st Quarter 0 KCTs	0 KCTs		
			2nd Qtr. 55 cr.	2nd Quarter 0 KCTs	0 KCTs		
			3rd Qtr. 82 cr.	3rd Quarter 0 KCTs	0 KCTs		
			4th Qtr. 109 cr.	4th Quarter 84 KCTs	0 KCTs		
4	OFC &Transmission Network	To provide Transmission network for new exchange equipment & provide Bandwidth on demand	Annual Outlay for 2082 cr.	Total 30,000 RKMs	15274 RKMs		
			1st Qtr. 208 cr.	1st Quarter 7500 RKMs	2196 RKMs		
			2nd Qtr. 416 cr.	2nd Quarter 7500 RKMs	3726 RKMs		
			3rd Qtr. 625 cr.	3rd Quarter 7500 RKMs	3147 RKMs		
			4th Qtr. 833 cr.	4th Quarter 7500 RKMs	6205 RKMs		

Note : * The distribution of Annual Financial Outlay quarter wise has been done as 10%,20%,30% and 40% for Q1, Q2, Q3 & Q4 respectively.

** The Quantifiable Deliverables are as per MOU 2011-12 signed with DOT

*** The broadband target for 2011-12 comprises of broadband on DSL(35 lakh) & Wireless broadband(40 lakh).

The achievement indicated under broadband does not include the number of broadband connections on 3G as the figure is not available.

Contd…Annexure – P

BHARAT SANCHAR NIGAM LIMITED
Performance for the year 2012-13 (upto December 2012)

(` in crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (In Rs. Crores)*	Quantifiable Deliverables (Physical Targets)**	Actual Achievement (Physical) up to 31.12.2012	Processes/ Timelines	Remarks / Risks / Constraints
1(a)	Mobile	To provide Mobile connections on demand	Annual Outlay for 2533 cr.	Total 100 lakh			
			1st Qtr. 253 cr.	1st Quarter 25 lakh	2.79 lakh		
			2nd Qtr.507 cr.	2nd Quarter 25 lakh	17.19 lakh		
			3rd Qtr. 760 cr.	3rd Quarter 25 lakh	5.86 lakh		
			4th Qtr. 1013 cr.	4th Quarter 25 lakh			
1(b)	Wireline & WLL	To provide DELs on demand	Annual Outlay for 768 cr.	Total 0 lakh			
			1st Qtr. 77 cr.	1st Quarter 0 lakh	(-) 12.72 lakh		
			2nd Qtr. 154 cr.	2nd Quarter 0 lakh	(-) 7.10 lakh		
			3rd Qtr. 230 cr.	3rd Quarter 0 lakh	(-) 6.19 lakh		
			4th Qtr. 307 cr.	4th Quarter 0 lakh			
2	Broadband	To provide Multiplay i.e voice, video & data on demand and allied services	Annual Outlay for 853 cr.	Total 75 lakh ***			
			1st Qtr. 85 cr.	1st Quarter 18.75 lakh	3.38 lakh		
			2nd Qtr. 171 cr.	2nd Quarter 18.75 lakh	3.54 lakh		
			3rd Qtr. 256 cr.	3rd Quarter 18.75 lakh	3.26 lakh		
			4th Qtr. 341 cr.	4th Quarter 18.75 lakh			

Annexure – P (contd.)

BHARAT SANCHAR NIGAM LIMITED
Performance for the year 2012-13 (upto December 2012)

(` in crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (In Rs. Crores)*	Quantifiable Deliverables (Physical Targets)**	Actual Achievement (Physical) up to 31.12.2012	Processes/ Timelines	Remarks / Risks / Constraints
3	TAX	To provide connectivity for additional exchange equipment & provide POIs on demand	Annual Outlay for 52 cr.	Total 0 lakh			
			1st Qtr. 05 cr.	1st Quarter 0 KCTs	0 KCTs		
			2nd Qtr. 10 cr.	2nd Quarter 0 KCTs	0 KCTs		
			3rd Qtr. 16 cr.	3rd Quarter 0 KCTs	0 KCTs		
			4th Qtr. 21 cr.	4th Quarter 0KCTs			
4	OFC &Transmission Network	To provide Transmission network for new exchange equipment & provide Bandwidth on demand	Annual Outlay for 1203 cr.	Total 30,000 RKMs			
			1st Qtr. 120 cr.	1st Quarter 7500 RKMs	1213 RKMs		
			2nd Qtr. 241 cr.	2nd Quarter 7500 RKMs	1865 RKMs		
			3rd Qtr. 361 cr.	3rd Quarter 7500 RKMs	3937 RKMs		
			4th Qtr. 481 cr.	4th Quarter 7500 RKMs			

Note : * The distribution of Annual Financial Outlay quarter wise has been done as 10%,20%,30% and 40% for Q1, Q2, Q3 & Q4 respectively.

** The Quantifiable Deliverables are as per MOU 2012-13 signed with DOT

*** The broadband target for 2012-13 comprises of broadband on DSL(30 lakh) & Wireless broadband(45 lakh).

The achievement indicated under broadband does not include the number of broadband connections on 3G as the figure is not available.

Annexure – Q

MAHANAGAR TELEPHONE NIGAM LIMITED
Performance for the year 2011-12

(` in Crore)

S. No	Name of Scheme/programme	Objective/ Outcome	Outlay 2011-12 (R.E.)			Target	Achievement as on 31-03-2012	Remark
			Non Plan budget	Plan Budget	Complementary Extra Budgetary Resources	Physical	Physical	
1	2	3	4(i)	4(ii)	4(iii)	6	8	9
1	Net new connections including WLL, Cellular and broadband connections	Increase in Net new customers	_	_	_	7,00,000	4,45,026	
2	New Switching Capacity addition including capacity for WLL GSM, NGN, IMS	Increase in New Switching Capacity, broadband ports, expansion of fiber network	_	706.75	_	0	0	
3	Deployment of DSLAM / FTTH ports					2,30,000	9,220	
4	Optical Fibre Cable (in Fiber KM)					60,000	38,478.98	
5	IT related services	IT related Projects	_	84.50	_	-	-	
6	Expansion in New Services Areas abroad and National acquisitions	Service in Overseas Operations	_	1.00	_	-	-	
	Total		_	**792.25**	_		-	-

Contd… Annexure – Q

MAHANAGAR TELEPHONE NIGAM LIMITED
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

S. No	Name of Scheme/programme	Objective/ Outcome	Outlay 2012-13 (R.E.)			Target Physical	Achievement upto Dec 2012 Physical	Remark
			Non Plan budget	Plan Budget	Complementary Extra Budgetary Resources			
1	2	3	4(i)	4(ii)	4(iii)	6	8	9
1	Net new connections including WLL, Cellular and broadband	Increase in Net new customers	_	_	_	650000**	-473426	#
2	New Switching Capacity addition including capacity for WLL GSM, NGN, IMS	Increase in New Switching Capacity, broadband ports, expansion of fiber network	_	387.92	_	-	-	##
3	Deployment of DSLAM / FTTH ports (in K)					-	408	
4	Optical Fibre Cable (in K Fiber KM)					30000	9096.06	-
5	IT related services	IT related Projects	_	56.56	_	-	-	-
6	Expansion in New Services Areas abroad and National acquisitions	Service in Overseas Operations	_	0.00	_	-	-	Subject to new overseas suitable opportunities
	Total		_	**444.48**	_		-	-

* Targets are fixed on yearly basis

****** Net new connection targets will not includes the disconnected dormant GSM subscribers (subscribers inactive for more than one year).

Even though Company has added around 330.39 K new GSM subscribers and also made a net addition of 59.28 K in Broadband subscribers during this period, however, due to deletion of around 700K dormant GSM subscribers (which were inactive for more than a year) for efficient utilization of numbering plan allotted by DoT, the net addition is in negative.

These targets were fixed primarily for adding new capacity in GSM / 3G and broadband networks. However, since enough capacity in GSM / 3G and broadband networks is available and the services are available on demand, no new addition in the capacity is made.

Annexure – R

DOT Schemes
Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Technology Development & Investment Promotion (TDIP)	i) Technology Development & IPR Generation ii) Promoting manufacturing and export of telecom equipment and services. iii) For promotional schemes like Telecom Centres of Excellence (TCOEs), National and International Participation in exhibitions iv) Promotion of telecom sector through conferences and exhibitions in India and abroad	2.00	i) 6th edition of India Telecom Exhibition and conference i.e. "India Telecom 2011" was organised with the objective of promoting and showcasing the capacities and opportunities in Indian Telecom Sector. ii) IPR Generation by TCOEs iii) Promotion of Telecom Export	During 2011-12	Successfully hosted India Telecom 2011 Event	
2	OFC based network for Defence Services (DS) (Army and Navy component)	To set up alternate network for Defence Services for releasing spectrum	50.00	Laying of Optical Fibre Cable for Defence Services for providing alternate network	Ongoing work		

DOT Schemes
Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
3	Mid Career Training	To prepare the officers of IP&TAFS Cadre for next level competency at five stages of their career progression	1.00	Training of the first batch of phase II of 1994 batch.	During 2011-12	Training of the first batch of phase II of 1994 batch trained.	
4	Physical Infrastructure for NICF	To prepare suitable training infrastructure for the training of officers in pursuance of National Training Policy.	1.93	Repair & construction of boundary wall & approach road, Topographical survey, geophysical survey, bore well, award of work of DPR preparation to specialized agencies, award of work to architect for preliminary architectural and proposed layout plan.	During 2011-12	DPR work started. Construction /repair of boundary wall work.	

DOT Schemes
Performance for the year 2012-13

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	**Human Resource Management for Indian Posts & Telecom Accounts & Finance Service [HRM for IP&TAFS]** i) Mid Career Training	Training of 3 batches under Phase II, III & IV proposed	3.23	Training outcomes cannot be quantified.	Full Year	Phase – IV MCT of IP&TAFS SAG level officers 1979 to 1988 batch completed	At present Domestic Component of MCT Phase-II of 1995 & 1996 Batch IP&TAFS is going on
	ii) Induction & In-service Course	Enhancement of skill knowledge and positive attitude of about 700 participants	2.02	Training outcomes can not be quantified	Full Year	Two batch of Group C Induction Training completed in addition to prob. Training and in-service training courses	
	iii) Institutional & Capacity Development Schemes & Initiatives	Mechanism of Capacity building and institutional framework for IP&TAFS would be strengthened	0.75	Training and development w.r.t. column 3	Full Year	Augmentation in office equipments through procurement	

DOT Schemes
Performance for the year 2012-13

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
2	PHYSICAL INFRASTRUCTURE FOR NICF	To prepare suitable training infrastructure for the training of officers in pursuance of National Training Policy.	4.00	Creation of training infrastructure	During 2012-13		
3	OFC based network for Defence Services (DS) (Army and Navy component)	To set up alternate network for Defence Services for releasing spectrum	1518.00	Laying of Optical Fibre Cable for Defence Services for providing alternate network	Ongoing work		
4	Technology Development & Investment Promotion (TDIP)	i) Technology Development like R&D and IPR Generation ii) Promoting manufacturing and export of telecom equipment iii) For promotional schemes like Telecom Centres of Excellence (TCOEs), National and International Participation in exhibitions iv) Promotion of telecom sector through conferences and exhibitions in India and abroad.	1.50	Providing technical assistance for promoting investment in the manufacturing sector, export of telecom equipments to the developing/ underdeveloped countries, organizing Telecom events & other seminars and IPR Generation through Telecom Centres of Excellence (TCoE)	Ongoing activity		

Chapter – V
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 etc. for the financial years 2011-12, 2012-13 and 2013-14.

(` in crore)

Head of Account	BE 2011-12			RE 2011-12			Actual 2011-12		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Budgetary Provision									
MH 3451-Secretariat Economic Services:									
(a) Secretariat (MOC)	0.00	6.97	6.97	0.00	5.83	5.83	0.00	3.88	3.88
(b) Directorate General Administration	0.00	152.61	152.61	0.00	226.37	226.37	0.00	162.23	162.23
(c) Administrator USO Fund	0.00	2.94	2.94	0.00	3.74	3.74	0.00	2.63	2.63
(d) C-DOT	191.06	0.00	191.06	130.40	0.00	130.40	126.00	0.00	126.00
(e) TEC	0.00	12.26	12.26	0.00	12.51	12.51	0.00	10.62	10.62
(f) TERM Cells	0.00	29.19	29.19	0.00	35.90	35.90	0.00	19.16	19.16
(g) Telecom Testing & Security Certification Centre	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
(f) Tribal Area Sub-Plan (TSP)	0.80	0.00	0.80	0.40	0.00	0.40	0.00	0.00	0.00
Total -MH 3451	193.86	203.97	397.83	130.80	284.35	415.15	126.00	198.52	324.52
MH 2071 – Pension									
Pension	0.00	3959.00	3959.00	0.00	4450.00	4450.00	0.00	4822.97	4822.97
MH 3275 –Other Communications Services:									
(a) Wireless Planning and Co-ordination	0.00	4.72	4.72	0.00	5.27	5.27	0.00	4.50	4.50
(b) Wireless Monitoring Services	47.79	23.92	71.71	2.40	23.71	26.11	0.13	19.02	19.15
(c) International Co-operation (ITU,APT, CTO)	0.00	20.01	20.01	0.00	19.10	19.10	0.00	17.99	17.99
(d) Transfer to Telecom Authority of India General Fund	12.00	29.00	41.00	16.00	35.00	51.00	16.00	35.00	51.00
(e) Telecom Dispute Settlement and Appellate Tribunal	1.40	8.98	10.38	1.40	9.80	11.20	1.18	9.39	10.57
(f) Financial Reliefs to ITI Limited	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(g) Compensation to I.T.I	0.00	6.18	6.18	0.00	5.38	5.38	0.00	5.38	5.38
(h) Transfer to USO Fund	2100.00	0.00	2100.00	1700.00	0.00	1700.00	1687.96	0.00	1687.96
(i) USOF-Compensation to Service Providers	1882.44	0.00	1882.44	1525.48	0.00	1525.48	1687.96	0.00	1687.96
(j) Technology Development & Investment Promotion	3.00	0.00	3.00	2.00	0.00	2.00	1.29	0.00	1.29
(k) Human Resource Management for IP&TAF Service.	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.00	0.99
(l) Tribal Area Sub-Plan (TSP)	7.77	0.00	7.77	4.62	0.00	4.62	0.00	0.00	0.00
Total - MH 3275	4055.40	92.81	4148.21	3252.90	98.26	3351.16	3395.51	91.29	3486.80
MH 2552 -Provision for North East Region	240.78	0.00	240.78	189.20	0.00	189.20	0.00	0.00	0.00
Total - Revenue Section	**4490.04**	**4255.78**	**8745.82**	**3572.90**	**4832.61**	**8405.51**	**3521.51**	**5112.79**	**8634.29**

(` in crore)

Head of Account	BE 2011-12			RE 2011-12			Actual 2011-12		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Capital Section:									
MH 5275 - Capital Outlay on Other Communication Services									
(a) TEC	7.42	0.00	7.42	6.30	0.00	6.30	2.08	0.00	2.08
(b) WPC	9.00	0.00	9.00	9.00	0.00	9.00	0.00	0.00	0.00
(c) WMO	9.50	0.00	9.50	9.50	0.00	9.50	3.86	0.00	3.86
(d) Undersea Cabling - Land & A&N	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
(e) OFC Net work for Defence Services	900.00	0.00	900.00	45.00	0.00	45.00	50.00	0.00	50.00
(f) Physical Infrastructure for NICF	1.00	0.00	1.00	1.93	0.00	1.93	1.93	0.00	1.93
Total - MH - 5275	926.93	0.00	926.93	71.73	0.00	71.73	57.87	0.00	57.87
MH- 6859 - Loans to I.T.I Ltd	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
MH 4552 -Provision for North East Region	101.02	0.00	101.02	5.85	0.00	5.85	0.00	0.00	0.00
Total - Capital Section	**1027.96**	**0.00**	**1027.96**	**77.58**	**0.00**	**77.58**	**57.87**	**0.00**	**57.87**
Total Telecommunications Services	**5518.00**	**4255.78**	**9773.78**	**3650.48**	**4832.61**	**8483.09**	**3579.37**	**5112.79**	**8692.16**

B.E. 2012-13 & R.E. 2012-13 and B.E. 2013-14

(` in crore)

	BE 2012-13			RE 2012-13			BE 2013-14		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Budgetary Provision									
MH 3451-Secretariat Economic Services:									
(a) Secretariat (MOC)	0.00	7.06	7.06	0.00	6.53	6.53	0.00	7.00	7.00
(b) Directorate General Administration	0.00	316.21	316.21	0.00	298.29	298.29	0.00	189.00	189.00
(c) Administrator USO Fund	0.00	4.32	4.32	0.00	3.91	3.91	0.00	4.05	4.05
(d) C-DOT	214.10	0.00	214.10	133.84	0.00	133.84	222.90	0.00	222.90
(e) TEC	0.00	13.68	13.68	0.00	13.94	13.94	0.00	54.30	54.30
(f) TERM Cells	0.00	42.11	42.11	0.00	26.62	26.62	0.00	29.04	29.04
(g) Telecom Testing & Security Certification Centre	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
(f) Tribal Area Sub-Plan (TSP)	0.90	0.00	0.90	1.16	0.00	1.16	1.10	0.00	1.10
Total -MH 3451	216.00	383.38	599.38	135.00	349.29	484.29	224.00	283.39	507.39
MH 2071 – Pension									
Pension	0.00	4806.00	4806.00	0.00	5100.00	5100.00	0.00	5508.00	5508.00
MH 3275 –Other Communications Services:									
(a) Wireless Planning and Co-ordination	6.50	5.39	11.89	1.20	7.51	8.71	1.30	7.98	9.28
(b) Wireless Monitoring Services	1.65	25.77	27.42	0.50	22.76	23.26	1.42	26.00	27.42
(c) International Co-operation (ITU,APT, CTO)	0.00	22.01	22.01	0.00	20.81	20.81	0.00	24.46	24.46
(d) Transfer to Telecom Authority of India General Fund	20.00	35.00	55.00	20.00	41.00	61.00	22.00	35.00	57.00
(e) Telecom Dispute Settlement and Appellate Tribunal	1.50	10.49	11.99	1.50	10.41	11.91	1.50	11.51	13.01
(f) Financial reliefs to ITI Limited	0.00	0.00	0.00	0.00	130.00	130.00	0.00	0.00	0.00
(g) Compensation to I.T.I	0.00	6.00	6.00	0.00	7.10	7.10	0.00	7.00	7.00
(h) Transfer to USO Fund	3000.00	0.00	3000.00	625.00	0.00	625.00	3000.00	0.00	3000.00
(i) USOF-Compensation to Service Providers	2689.10	0.00	2689.10	548.22	0.00	548.22	2683.80	0.00	2683.80
(j) Technology Development & Investment Promotion	1.50	0.00	1.50	1.50	0.00	1.50	1.50	0.00	1.50
(k) Human Resource Management for IP&TAF Service.	10.99	0.00	10.99	6.00	0.00	6.00	12.00	0.00	12.00
(l) Tribal Area Sub-Plan (TSP)	11.10	0.00	11.10	4.83	0.00	4.83	13.40	0.00	13.40
Total - MH 3275	5742.34	104.66	5847.00	1208.75	239.59	1448.34	5736.72	111.75	5848.47
MH 2552 -Provision for North East Region	335.00	0.00	335.00	86.95	0.00	86.95	329.00	0.00	329.00
Total - Revenue Section	**6293.34**	**5294.04**	**11587.38**	**1430.70**	**5688.88**	**7119.58**	**6289.72**	**5903.14**	**12192.86**

(` in crore)

	BE 2012-13			RE 2012-13			BE 2013-14		
	Plan	**Non-Plan**	**Total**	**Plan**	**Non-Plan**	**Total**	**Plan**	**Non-Plan**	**Total**
Capital Section:									
MH 5275 - Capital Outlay on Other Communication Services									
(a) TEC	13.50	0.00	13.50	1.80	0.00	1.80	11.00	0.00	11.00
(b) WPC	0.50	0.00	0.50	0.30	0.00	0.30	0.20	0.00	0.20
(c) WMO	50.35	0.00	50.35	2.65	0.00	2.65	43.58	0.00	43.58
(d) OFC Net work for Defence Services	1218.30	0.00	1218.30	1366.20	0.00	1366.20	2180.50	0.00	2180.50
(e) Physical Infrastructure for NICF	19.00	0.00	19.00	4.00	0.00	4.00	23.99	0.00	23.99
Total - MH - 5275	1301.65	0.00	1301.65	1374.95	0.00	1374.95	2259.27	0.00	2259.27
MH-4859-Investments in Bharat Broadband Network Limited (BBNL) *	60.00	0.00	60.00	60.00	0.00	60.00	0.00	0.00	0.00
MH- 6859 - Loans to I.T.I Ltd	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01
MH 4552 -Provision for North East Region	145.00	0.00	145.00	152.35	0.00	152.35	251.00	0.00	251.00
Total - Capital Section	**1506.66**	**0.00**	**1506.66**	**1587.30**	**0.00**	**1587.30**	**2510.28**	**0.00**	**2510.28**
Total Telecommunications Services	**7800.00**	**5294.04**	**13094.04**	**3018.00**	**5688.88**	**8706.88**	**8800.00**	**5903.14**	**14703.14**

* A special purpose vehicle named "Bharat Broadband Network Limited (BBNL)" has been incorporated for implementation of National Optical Fibre Network (NOFN).

Revenue Section:
USOF has been shifted from non-plan to plan in BE 2011-12

Position of Utilization Certificates: No utilization certificate for the Grants released up to 31.3.2012 is outstanding.

CHAPTER – VI

REVIEW OF PERFORMANCE OF STATUTORY AND AUTONOMOUS BODIES

1. Telecom Regulatory Authority of India (TRAI)

The Institutional Capacity Building Project (ICBP) comprises of Consultancy Studies and International Training for officers and staff of TRAI. This project is being carried out as a part of the capacity building of the available human resources in TRAI to carry out its regulatory functions. The project has two components one relating to the Consultancy / Studies on Techno-regulatory issues and other relating to International Training of officers on regulatory issues.

REVIEW OF PERFORMANCE

During the year 2011-12, following Consultancy Studies / Seminars /Surveys etc were undertaken under ICBP:

- Engagement of agency for CDR work
- Consultancy on Next Generation Network
- Survey on Broadband in all cities of India
- Re-designing of Telecom Regulatory Authority of India website through NICSI
- Development of MIS Software for online data collection and report generation
- Appointment of independent agencies for Implementation and effectiveness of Telecom Consumers Protection and Redressal of Grievances Regulation, 2007 and Customer perception of Service through survey and audit and assessment of Quality of Service
- Engagement of firm/agency for review of Reporting System on Accounting Separation Regulation, 2004
- Engagement of consultants for study of Beta of Telecom Service sector and market rate of return
- Visit cum Study tour/ International Trainings/Workshops/Seminars etc.

The activities carried out during the first 9 months of the financial year 2012-13 (April-December 2012) are as detailed below:

Consultancy on Next Generation Networks:

As per the agreement the scope of the consultancy work includes the following:

(i) Preparation of an Exhaustive Report on NGN
(ii) Preparation of a Consultation Paper on NGN
(iii) Conducting Workshop on NGN for Industry

(iv) Assist Telecom Regulatory Authority of India in post evaluation work

Consultant had submitted 1st draft of the exhaustive report on NGN on 28.9.2011. Subsequently, the exhaustive report underwent two revisions, based on the comments provided by Telecom Regulatory Authority of India. Further, consultant had submitted 4th draft exhaustive report on 27.04.2012 after incorporating the addition/changes suggested by Telecom Regulatory Authority of India.

Consultant had also submitted 1st draft of the Consultation Paper on NGN on 14.10.2011. Subsequently, the Consultation Paper underwent three revisions, based on the comments provided by Telecom Regulatory Authority of India.

Workshop on NGN was conducted by the consultant from 29.11.2012 to 30.11.2012 at New Delhi

Development of MIS application software for online data collection and report generation: Application has been developed and user testing is in progress

Intranet in TRAI: TRAI is in process to implement Intranet in TRAI

Consultancy for study of cross media ownership and vertical integration in broadcasting and other media sector: Data collection and collation is in progress

Study tour on 'making telecom networks more resilient to Disasters/Emergencies'
The tour was undertaken by the officials of TRAI in the month of September 2012

Workshop on "Issues involved in implementation of Emergency Communication System": The workshop was held on 31st October 2012 at India Habitat Centre, New Delhi

Seminar on Technical Implementation of Priority routing of calls of persons engaged in 'response and recovery': The seminar was held on 21st November 2012 at Conference Hall, BSNL, New Delhi

Audit and Assessment of Quality of Service/Online Performance Monitoring System and Customer Satisfaction Survey

The following agencies have completed their audit and survey work for June 2012:

- Spectrum Planning-Survey
- M/s Market Pulse – Survey
- M/s VOICE – Survey
- M/s TCIL – Audit
- M/s IMRB - Audit

Press release for the Quarter ending March 2012 and June 2012 were issued/uploaded on TRAI website on 19th July 2012 and 16th November 2012, respectively

New Tender for Survey was floated on 9th August, 2012. The bids were opened on opened on 5th September 2012. Finalization/award of work is being done. New tender for Audit is to be floated

Visit cum Study tour/International Training/Workshops/Seminars etc.

The details of performance for the year 2011-12 and 2012-13 (up to December 2012) are placed at **Annexure - "S"**.

2. Telecom Disputes Settlement & Appellate Tribunal (TDSAT)

The Plan expenditure of TDSAT is primarily for capacity building of the tribunal through undertaking study tours, conducting seminars in different parts of the country to raise awareness amongst the general public regarding dispute settlement, and upgradation of reference material in the tribunal.

Actual Financial performance for first 9 months of 2012-13 (up to December 2012)

(` in crore)

Sl. No.	Programme	RE 2012-13	Progress up to Dec 2012
1	Upgradation of TDSAT reference Library	0.10	0.03
2	Study tour for familiarization of the Telecom regulatory environment/Training	0.95	0.35
3	Holding of Seminar on Telecom Disputes Settlement	0.45	0.15
	Total	**1.50**	**0.53**

The review of the performance for the year 2011-2012 and for the year 2012-2013 (up to December 2012) is placed at **Annexure – "T"**.

3. Centre for Development of Telematics (C-DOT)

C-DOT focuses on research and development in the technology areas of optical, broadband wireless, active sharing wireless infrastructure, next generation packet, and software-intensive applications like network management etc. to provide technology for high-speed communication. Number of technology products has been developed and successfully field tried with technology approval for introduction in the network.

The year 2011-12 for C-DOT was very eventful involving technologies' trial, business networking, demos, presentations, and participation in various forums for taking C-DOT

technologies to the forefront in National Program on Security, Broadband connectivity for gram panchayat, National Knowledge Network etc. Efforts were also made in consolidating our technology position and signing various project agreements, participation in tenders / EOIs (Expression of Interest). Besides, vigorous efforts were also made in achieving the financial targets including internal revenue generation, clearing outstanding dues as well as undertaking initiatives in bringing transparency in the system and processes.

Following are the major achievements/progress during 2011-12

- **Communication and Security Research and Monitoring**

The scheme focuses on research, development, trials and progressive scaling of a Central Monitoring System. The system facilitates call interception, monitoring and analysis of target subscribers' data and social networking patterns in a secured, end-to-end work-flow, as per the requirements of LEAs (Law Enforcement Agencies) to address the security threats and unlawful activities by anti-social elements who misuse the nation's communication network.

CMS software customization completed for LEMF (Law Enforcement Monitoring Function) for LEA (Law Enforcement Agency), RMC (Remote Monitoring Centre) software enhanced to provide support for LEMF, MNPO (Mobile Number Portability) and CMC software. RMC Disaster Recovery design is finalized. Load testing of ISF and RMC in-progress.

Delhi LSA (Licensed service Areas) installation completed for all services, except for sites – Aircel, MTS, Etisalat. Data Centre Technical evaluation completed for data centre & order to be placed by NICSI. Tender for 16 nos. of RMCs is under technical evaluation, catering to CMS infrastructure for 16 nos. of LSAs.

- **Technologies for North-East Region (NER)**

North-east region has special requirements because of its topology, terrain, as compared to the rest of the country and also because of the demographics of a scattered population over the region. These requirements call for feasibility study of appropriate technologies for such region, proof-of-concept for such technologies, field-trials, specific research and development work in certain cases and adaptation/ upgradation of developed technologies.

The technologies chosen during the FY 2011-2012 for effecting improvement in the Telecom Infrastructure and facilities in the NER consists of VoIP (Voice-over-IP, a packet technology) including migration of fixed-line switching system to packet technology, Broadband services over wire-line, optical and wireless access. During the year, technology for fixed-line migration to the next generation packet technology has been proven in the field with 3 sites migrated to IP-based technology, and its country-wide propagation including NE region is being planned. Further, the technology has also

been enhanced to comply with IMS standard. PoC also carried-out for Broadband wireless technology at Tripura in North-East demonstrating its application in the expansion of SWAN (State-Wide-Area network) network and the technology is in-operation in the state. Feasibility study with regard to site, application etc. also carried-out for the expansion of SWAN network over optical fibre using deployment of GPON technology at Tripura, FTTH service deployment in Tribal Sate – Chhattisgarh.

- **Rural Technologies**

The focus of the scheme has been to undertake technologies which provide affordable communication facilities and give impetus to the rural economy. During year 2011-2012, achievements made in various technology programs are as follows:

- **Shared GSM Radio Access Network (SG-RAN):** A RAN (Radio Access Network) allowing sharing of active infrastructure of a GSM-based cellular network upto 3 telecom service providers has been installed at Ernakulam in Kerala LSA (Licensed Service Are) and successfully field tried. Another system installed in Tata Tele-network at Hosur, Tamil Nadu, is planned to connect 2 more operators to fully exploit the system's capability for sharing of radio infrastructure. M/s Aircel, as 2nd operator, agreed to participate in the trial. Discussion initiated with M/s BEL as a lead manufacturer for transfer of SG-RAN technology to gear-up production infrastructure for the technology. Further, PoC of GPRS and spectrum sharing also completed as part of Enhanced Active infrastructure sharing (EAIS).

- **Data Rural Application Exchange (DRAX):** A software intensive application has been developed seamlessly integrating with 3rd party web-pages with capability to hosts multiple services catering to the needs of rural areas, namely, bhoomi record access, agricultural tips, health tips, public grievances, entertainment, news, seat availability in the train etc. Keeping in-view the literacy level of rural populace and overcoming the need for manual navigation of service pages, the user interface for accessing these services has been greatly simplified by providing Image driven GUI, simple input device of numeric keypad, Easy card navigation, multi-lingual announcements (English, Hindi, Kannada etc. The system has been demonstrated for its field applications.

- **Integrated Access Network solution for Gram-Panchayats:** Considering the need for broadband connectivity in the Gram-Panchayats, pilot trial of 50 broadband wireless systems for last mile broadband wireless connectivity in the select Gram Panchayat locations were carried-out. Besides, site(s) also identified in Chhattisgarh state for piloting C-DOT GPON and BBWT (Broadband Wireless Terminal) technologies for broadband connectivity to Gram Panchayat. Feasibility study for the site has been completed with regard to fibre availability on the site. M/s BSNL has also been requested for site(s) allocation identified at Chhattisgarh to field try the technology to implement TSP (Tribal Sub-Plan) program. The technology trials help in planning the deployment of new

technologies in the remote and hilly areas of the country to catalyze the growth of region as well as facilitate in providing Urban-amenities in Rural Areas (PURA) and to bridge the divide between rural and urban.

- **Broadband technologies**

The scheme aims at research and development on packet-based broadband technology for access and transport on various transmission media including optical, wireless and copper, and technologies for enhancing capacity and functionality of C-DOT's gigabit routers to terabit-per-second capacities.

Research and development focus during the year has been on packet-based broadband technology development comprising of Multi-Port Optical Enterprise Solution (MOES), enabling technologies for terabit router.

- **Multi-Port Optical Enterprise Solution (MOES)**, the breakthrough in the development of MOES technology include CPEs' (Customer Premises Equipment) variants addressing requirements of urban, rural, backhaul connectivity; multi-port terminal serving many CPEs. The MOES technology is useful for providing cost-effective high bandwidth triple-play solution in competitive urban segment, connectivity from existing E1 networks to packet-switched backbone networks and in rural areas through single fibre termination for applications like e-education, e-health, e-governance.

- **Enabling technology for terabit router,** prototype IPv6 compliant terabit router was developed, which was also demonstrated and given to National Knowledge Network (NKN) for pilot in the NKN network. The technology breakthrough in the prototype terabit router development has given significant in-house expertise to undertake development for a high capacity commercial grade Router, which is pivotal technology element in building very high-capacity IP-based communication networks for meeting the country's increasing bandwidth requirements in future.

- **Strategic and Enterprise Solutions**

The scheme aims at development of strategic solutions for the Defence sector and software intensive applications for enterprise solutions; these solutions catering to the requirements of strategic and enterprise segments will be an important source of revenue for C-DOT.

The technology development focus during the year has been towards software-intensive applications for enterprise, development and setting-up of secure network for the purpose strategic importance. Major accomplishments are as follows:

- **Secure and Dedicated Secures Communication Network (SDCN):** Enhancement & customization of various network elements, namely, DSLAM, Router, Aggregator, soft switch and development of secure VoIP phone (CPE – Customer Premises Equipment) have been completed and the entire core network elements deployed in Delhi to set-up SDCN network, jointly with MTNL. Network roll-out has commenced for providing secure VoIP services to 2000 subscribers in Delhi and subsequently network is planned to be expanded to 5000 subscriber

- **Customized Service Management Platform (CSMP):** A generic NMS platform with service management layers and customized application based on industry standards (SNMP / CORBA /XML/TMF /non-TMF) development completed and piloted with IP Networks. The platform can integrate with EMSs / NMSs of diverse technology domains such as TDM, IP, optical, wireless and provide Element / Network service management functions.

- **Commercialization of Data Clearing House (CLH)** application, meant for providing services commercially for national roaming between MTNL and BSNL on ASP (Application Service Provider) model for clearance of their national roaming records for roaming into their PMN (Public Mobile Network) area. The application has been developed based GSMA specifications and in-operation commercially over last 3 years. The product has been progressively enhanced to support Inter Operator Tariff (IOT) Validations Support, NRTRDE (Near Real Time Roaming Data Exchange) engine, based on the GSMA specifications.

- **Enhancements/ new features/ Upgradation/ adaptations/ technical support for developed technologies**

  Regular on-site /& off-site technology support is being provided and accomplishments in some of the major technology programs during the year are as follows:

  - **MAX-NG (Next Generation,** technology helping in migrating fixed-line switches to packet-based technology has been validated & tested in the field. System is proven field worthy, operational in the field and being used in BSNL network at 3 sites. Planning for mass migration of the technology is ongoing.

  - **Fibre-to-the-Home (FTTH) services,** C-DOT VoIP solution for provisioning of voice over FTTH are being deployed and operational in 132 cities across country for providing triple-play services to the subscribers with optical access to the customer premises. Expansion to other cities is also ongoing.

  - **ISPs (Internet Service providers)**, for lawful interception and monitoring of internet traffic , study has been completed for all the ISPs' network as suggested by DOT and submitted the solution document comprising BOMs and Specs for each

ISPs for its POPs/ Gateways for necessary infrastructure procurement on-site. During the year, ISP monitoring system has been installed at 9 new locations.

- **Basic research on telecom networks and enabling technologies/ study/ pilot projects**

  During the year, the technology-exploration studies had been undertaken for feasibility study, prototype development/ demonstration and concept proving. These study projects include futuristic technology programs, namely, Long Term Evolution-Advanced (LTE-A), Wireless Phone Secure (WIPS), Unified Network Management System (NMS), 10G Gigabit Passive optical Network (GPON), etc.

- **Campus**

  This is primarily a construction project for building residential complex including hostels in the C-DOT Campus at Delhi. Plan for construction of the residential complex has been submitted to MCD for approval. Approval has already been given by the various statutory bodies, namely, DDA, Delhi fire services, Delhi Urban Art Commission. Final approval from MCD is awaited.

- **Business promotion**

  C-DOT's GPON technology was transferred to 7 manufacturers from the public sector (M/S BEL, ITI and UTL) and private companies (M/S SM Creative, VMC System Ltd, Sai Infosystems Ltd and HFCL). Hon'ble Shri Kapil Sibal, Minister of Communication & IT, Shri Milind Deora, MoS(C) and Shri Sachin Pilot, MoS(IT) handed over the ToT packages to the manufacturers in a function organised to commemorate the event.

  - **NDAs (Non-Disclosure Agreement)** signed for contractual relationships with respect to various technology projects, namely, LTE-A, broadband wireless, NMS, DSLAM, ADSL CPE, TDM to NGN migration, and manufacturing of PCBs.

  - **Technology pilots/ trials/ PoC**

    - **Managed Leased Line Network (MLLN):** Proposal for technology trial submitted to M/S BSNL has been accepted for conducting PoC for 10,000 circuits on reimbursement basis.

    - **Broadband Wireless Terminal (BBWT)**: Solution has been proposed and approved for providing connectivity between Gram Panchayats and village schools as part of Broadband Application for Panchayat Public Information Infrastructure: The e-Panchayat Experiment Site Programme.

      - PoC at Ajmer has been completed and order for supply of C-DOT BBWT for 40 Panchayat schools has been received.

- PoC for BBWT has been completed for Dr Mahajan Imaging Centre to connect their 5 centres in Delhi over wireless. Wireless connectivity within Navy hospitals, wireless connectivity for SWAN expansion for IT Directorate, Govt. of Tripura at Agartala, and wireless connectivity for coastal surveillance system have been secured.
- Techno-commercial proposals have been submitted for BBWT system to Dr Mahajan Imaging Centre, coastal surveillance system and STPI Bangalore for their last mile connectivity.
- BBWT solution has been supplied to M/S Sankara Netralaya, Kolkata, and more leads are being pursued in healthcare segment.

- **Gigabit Passive Optical Network (GPON): Proposal has been submitted for trial of GPON technology to AFNET (Air Force Network)**

    - EoI has been submitted to TCIL for GPON requirement in Kuwait with ITI.

- **Next Generation Networks (NGN): Techno-commercial proposal has been submitted to South Central Railways, Hyderabad, for RAX upgradation to packet-based technology.**

    - Efforts are also on to pursue for use of NGN technology in disaster management and WiFi signalling along tracks in all the zones in Indian Railways.
    - C-DOT has been working in collaboration with M/S BEL on Tactical Communication System, and C-DOT's VoIP phone and router are planned to be demonstrated in their setup.
    - MoU draft proposal has been submitted to MTNL for executing various projects like IMS and FTTH, in MTNL network.

- Data Rural Application Exchange (DRAX): Techno-commercial proposal has been submitted for 72 DRAX systems for clusters of Central Silk Board, pan-India.

- Karnataka State Council for Science and Technology has expressed interest in DRAX solution and has asked for demonstration at NRDMS centres at Ramanagar and Shimoga in Karnataka.

- **Technology promotions**: C-DOT has participated in various exhibitions and marketing events like India Telecom, Convergence, Defexpo, Health Mela at Ajmer, SES Bangalore.

- **C-DOT Manufacturers**' Conference was held on 10th to 11th January, 2012, to showcase and promote contemporary C-DOT technologies to promote indigenous manufacturing in the country.

- **IPRs, Papers presented / Publications etc.**

Intellectual Property Asset	Nos.	Subject Invention
Patents Granted	1 no.	A novel architecture for Message Bus
Patents Filed	5 nos.	1. A method for spectrum sharing in GSM-BSS.
		2. An active infrastructure sharing system.
		3. A highly resilient GPON ring architecture
		4. A communication system for managing leased line network with wireless fallback.
		5. A communication system for managing leased line network and a method thereof.
Papers presented in the national / international conferences / seminars	4 Nos.	1. GSM-EDGE modulators for 2.5G system, an efficient parallel implementation on FPGA – at 2011 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC).
		2. Analysis of spectrum utilisation for existing cellular technologies in context to Cognitive Radio - at 2011 IEEE International Conference on Computer Convergence Technology (ICCCT).
		3. Implementing knowledge management in R&D – at National Conference on Information Computing and Management Challenges in Contemporary Business, at Jothi Nivas, Bangalore.
		4. Cloud computing: an outlook – at National Conference on Information Computing and Management Challenges in Contemporary Business, at Jothi Nivas, Bangalore.

Annexure –S

TELECOM REGULATORY AUTHORITY OF INDIA
Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t. Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Institutional Capacity Building Project of TRAI	To strengthen the institutional capabilities of TRAI to perform its functions under the TRAI Act 1999 including carrying out of consultative studies on regulatory issues and provision of training of its employees	16.00	Project envisages to strengthen the institutional capabilities of TRAI to perform its functions under the TRAI Act, 1999 including carrying out of consultative studies on regulatory issues and provision of training of its employees	During the Annual Plan period	The consultancy studies help TRAI in formulating the recommendations & other regulatory functions and also to meet the training needs of TRAI officials.	

TELECOM REGULATORY AUTHORITY OF INDIA
Performance for the year 2012-13

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t. Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Institutional Capacity Building Project of TRAI	To strengthen the institutional capabilities of TRAI to perform its functions under the TRAI Act 1997 including carrying out of consultative studies on regulatory issues and provision of training	20.00	(a) Consultative Studies/Workshop on Regulatory issues. (b) Provision of training of TRAI official on technical and Regulatory issues	During the Annual Plan period	The proposed studies help TRAI in formulating the recommendations & other regulatory functions and also to meet the training needs of TRAI officials.	

Annexure –T

TELECOM DISPUTES SETTLEMENT & APPELLATE TRIBUNAL
Performance for the year 2011-12

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2011-12 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-03-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Upgradation of TDSAT Reference Library	Purchase of books and other related materials to strengthen the reference Library.	0.10	Purchase of books and other related materials to strengthen the Library.	On going activity	Books and hardware/software purchased	
2	Study tours for familiarizing with the telecom regulatory environment/ Training	Study tour by Hon'ble Chairperson & Members to various countries and training of officers of TDSAT on various subject on telecom regulation including dispute settlement.	0.85	Study tour by Hon'ble Chairperson & Members to various countries and training of officers of TDSAT on various subjects on telecom regulation including dispute settlement.	On going activity	The study tours to Switzerland, London, Singapore, Armenia City, Colombia, Geneva, Male, Maldives and Selangor/Kuala Lumpur, Malaysia were undertaken to hold meetings with various regulatory authorities and to study the telecom and broadcasting regulatory environment including settlement of disputes in these countries.	
3	Holding of Seminars on Telecom Disputes & Settlement.	Holding of domestic seminars on Telecom Disputes & Settlement in six cities in the country	0.45	Holding of domestic seminars on Telecom Disputes & Settlement in six cities in the country	On going activity	Seminar held at Guwahati, Bhubaneswar, Chandigarh, Ahmedabad awareness amongst stake holders about dispute settlement in telecom and broadcasting sector	
		TOTAL	**1.40**				

TELECOM DISPUTES SETTLEMENT & APPELLATE TRIBUNAL
Performance for the year 2012-13 (up to 31st December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (R.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Upgradation of TDSAT Reference Library	Purchase of books to strengthen the Library.	0.10	Purchase of books to strengthen the reference library	Ongoing activity	Purchase of books and hardware/Software for upgradation of reference library	
2	Study tours for familiarizing with the telecom regulatory environment/ Training	Study tour by Hon'ble Chairperson and Members to various countries	0.95	Study tour by Hon'ble Chairperson and Members to various countries	Ongoing activity-	The Study tour of Senior officers of TDSAT to Miami, USA, Dubai and South Africa were undertaken to hold meetings with various regulatory authorities and to study the telecom and broadcasting regulatory environment including settlement of disputes in these countries.	
3	Holding of Seminars on Telecom Disputes & Settlement.	Holding of domestic seminars on Telecom Disputes & Settlement in four cities in the country	0.45	Holding of domestic seminars on Telecom Disputes & Settlement in four cities in the country	Ongoing activity	Seminar held at Srinagar and Patna have helped in generating awareness amongst stake holders about dispute settlement in telecom and broadcasting sector	
		TOTAL	**1.50**				

Annexure – U

CENTRE FOR DEVELOPMENT OF TELEMATICS
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (B.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1	Communication & Security Research and Monitoring	The Communication and Security research and monitoring scheme aims to build, through indigenous Research & Development, a national infrastructure comprising a Central Monitoring System with secure connectivity and automated provisioning, to all TSPs and ISPs to strengthen the functions of the Law Enforcement Agencies (LEA) of the country.	80.86				
1 a	R&D for security management for law enforcement agencies: Centralized Monitoring System (CMS)	The R&D component of the scheme primarily focuses on design, development and trials / validation of systems related to call interception, monitoring, analysis of social networking of target subscribers' data, end-to-end secured work flow etc. as required by various law enforcement central and state agencies to address unlawful activities through misuse of country's voice-&-data communication network by anti-social elements.	20.43	Centralized Monitoring System (CMS)	• CMS Software release for LEMF,RMC/CMC s/w development to support LEMF, MNPO& ISF software development for SNMP agent of SGTK EMS, multiple codec support in 3G & LIS interface customization for 6 circles. • CMS - NMS & EMS development for SGTK card & multiple codec support in 3G, LIS Interface Customization for 6 circles. •Software development for	• Development of s/w solution for LEAs, support for LEMF, MNPO in the RMC software. CMC, ISF s/w enhancement, development of SNMP agent for SGTK EMS in advance stages. • CMS- NMS implemented, load testing of ISF & RMC initiated, RMC-DR (RMC - Disaster Recovery) design is finalized.	

					achieving TEC GR.		

CENTRE FOR DEVELOPMENT OF TELEMATICS
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2012-13 (B.E.)	Quantifiable Deliverables/ Physical Outputs	Processes/ Timelines	Achievements w.r.t Col (5) as on 31-12-2012	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
1b	Progressively scaled up infrastructure creation for CMS national roll out	Progressive scaling up and build-up of the facilities in an environment of multi-technology, multi vendor and multi-service providers to the requirements of LEAs. This is a national level project to build an infrastructure to centrally monitor, for lawful interception, the entire country's TSP, ISP and satellite networks. Entire work-flow, from provisioning the target to interception, will be end-to-end automated on a secure platform.	60.43	To build-up infrastructure for a National Roll-out of CMS	• Installation & Integration of MNPO (Mobile Number Portability Operator) & RMCs of 1 LSA & its TSP. • CMC Installation & upgradation for existing pilot CMC. • Data Centre Build up-to 70% capacity, Main CMC Infrastructure installation upto 20% Capacity. • Installation & Integration of 2 ILDs, RMCs & their TSPs for total 10 LSAs. Material procurement for 2 more LSAs	• MNPO integration with CMS software& installation. • Upgradation of existing pilot. • CMC data centre with equipment undergoing installation & testing. • Installation activities ongoing in 7 LSAs with the installation of ISFs at TSPs' premises of the respective LSAs & integrating these ISFs with corresponding pilot RMCs for the LSAs	
2	Rural Technologies	This scheme envisages various deliverables with Rural focus, to facilitate improving Rural tele-density and also to provide Broadband connectivity for bridging the digital divide between the Urban & Rural India. In this scheme, it is plan to complete the technology development for enhancing the capability of shared active GSM infrastructure (BSS) with GPRS/E-	8.45	• Enhanced active infrastructure sharing (EAIS)	• EAIS : GPRS, E-GPRS OMC-R for E-GPRS stack implementation, enhanced OMC-R for GPRS & E-GPRS implementation	• EAIS:GPRS functionality implemented & testing is in-progress; the E-GPRS functionality development has commenced	

		GPRS functionalities.					

CENTRE FOR DEVELOPMENT OF TELEMATICS
Performance for the year 2012-13 (up to December 2012)

(` in Crore)

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3	Broadband Technologies	The Penetration of Broadband services in India is poised for a huge growth primarily due to the Governments initiative on increasing the Broadband connections, building a National Knowledge Network, to bring tele -services to the rural population etc. This scheme envisages major activities related to commercial-grade multi-terabit routing system design, development and technology trials. The commercial-grade multi-terabit routing systems will help building a high capacity network transmission to support telecom technologies for masses cost effectively and addressing the application needs of networks of Defence, security and national knowledge.	39.44	• Commercial grade multi terabit router • Routing platform for National knowledge network (NKN) • Broadband CPE with 3G wireless fallback	• Specification finalization, system architecture, design completion for multi terabit router, for multi terabit Router. • 1U stand-alone routing platform with 80 Gbps (duplex) throughput, Porting of Border Gateway protocol(BGP),Intermediate system to system (ISIS), Routing Information protocol(RIP), etc. with multicast and EMS feature. • Commencement of field trial for ADSL modem (CPE) with 3G wireless fallback option is planned during the year	• Completion of architecture & engineering design & commencement of its design implementation activities. • The routing platform with 80 Gbps throughput (full duplex) for NKN is ready & its user-interface development activities presently ongoing, multiple prototypes of these routing platforms being fabricated for various trials. • ADSL 3G wireless fallback is under testing. Site is also being identified for trial.	

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4	Carrier networks' transport technology	In this Scheme, it is planned to put in R&D efforts in the technology for access, transport/ backhaul and metro aggregation networks to indigenously build systems and sub-systems and gain expertise	15.81	• Optical aggregation and access system (OAAS)	• Commencement of validation of Bhawan Damini & ONT9. • Design & coding of COLT. • Demonstration of services over 10G-GPON	• Validation of Bhavan Damini, a cost-effective Optical Line Termination (OLT) with optical interfaces, in-progress. • C-DOT line card (COLT) in advance stage of development. • Preparations ongoing for demonstration of services over 10G-GPON	
5	Telecom services & applications	This scheme aims to undertake development of software intensive services and applications	12.83	• Development of converged Network Management system, • Development of customized platform for rural services.	• UNMS rel. V.1.0.0 (base release) to support configuration, accounting, number & fault management systems. • Focus to develop a rural-specific customized service delivery platform for DRAX applications with advanced features & functionalities, i.e., speech/& gesture recognition etc. with simplified GUI.	• UNMS base release with provisioning and number management system, development in-progress. • Activities also in-progress for PoC / demo /prototypes for various NMS applications in NOFN, BBWT, IP-based Managed Lease Line Network (MLLN) for BSNL based on CSMP framework. • System architecture finalized for CPRS supporting gesture / speech recognition, near-field-communication etc. for providing application oriented services like adhar authentication, e-agriculture, e-doctor consultation etc; design implementation activities in-progress	

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6	Power efficient & green technologies	It is planned to undertake programs to put in R&D efforts to explore alternative sources of energy, and do design optimizations to enhance system power efficiency in the existing developed and deployed technologies as well as new technology programs.	3.70	•Development of High Efficiency RF Amplifier (HERA)	• System requirement specification, system architecture. • System Integration, validation, pilot of High efficiency RF amplifier (HERA).	•Development ongoing for High efficiency RF amplifier (HERA).	

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1	2	3	4	5	6	7	8
7	Secure wireless & wire-line networks	This scheme focuses on creating secure networks for intra and inter-department communications within various ministries of the Government of India. Information security is required both during data storage and retrieval. Communication security is required for all information transfer, including voice, video and data, and hence, security needs to be ensured for fixed-line, wireless as well as mobile communications. Secure and Dedicated Communication Network (SDCN)is an IP-based dedicated pan-India secure network is planned to be set up across all the states. Technology used for setting up the network is developed indigenously in C-DOT A secure mobile communication network is planned to be developed for standard GSM technologies and the enhancements, like EDGE and 3G.	26.36	•Wireless Phone Secure (WiPS): A secure mobile communication network is planned to be developed for standard GSM technologies and the enhancements, like EDGE and 3G. •Secure and Dedicated Communication Network (SDCN) pan-India roll-out	• Specification finalization, implementation of smart phone prototype & a tablet prototype • Preparing detailed plan for pan-India roll-out, submission and approval of the proposal.	• Development ongoing progressively	

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8	Next generation mobile technology	In this scheme, the focus will focus onto develop Long Term Evolution of Universal Terrestrial Radio Access Network (LTE-A) access nodes, such as eNodeB, and all the elements of core networks required for LTE-A	17.94	• Development of access nodes, such as eNodeB, and all the elements of core networks required for LTE-A	• Design and development of Femto eNodeB. • Architecture design of EPC	• Prototype hardware for Femto eNodeB realized in the lab • EPC (Evolved Packet Core) architecture finalized. Design implementation in advance stage of development for various EPC nodes, namely, Mobility Management Entity (MME), Serving Gateway (SGW), Packet Data Network Gateway (PGW), Home Subscriber Server (HSS), Policy and Charging Rules Function (PCRF).	
9	Enabling technologies & telecom networks	This scheme helps C-DOT to maintain its position of excellence in R&D, by conducting basic research as well as conducting studies and setting up pilots in new/green field areas in Telecom Enabling technologies & Networks.	6.87	• Exploratory work related to Optical backbone network, spoken work spotting, free text search, Proof of concept and setting up pilots for Managed leased line network (Ip-MLLN)	• Study & feasibility reports / prototypes wherever required for Optical backbone network •PoC for an IP-based Managed Leased Line Network (IP-MLLN).	Study activities are ongoing for various technology programs & outcomes expected towards the end of financial year.	

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1	2	3	4	5	6	7	8
10	Enhancements/ New Features/ Upgradation/ Adaptation/ Technical support for developed technologies	This scheme focuses on R&D efforts related to development /and technology support, required for enhancements, evolution, feature addition, scalability, value addition and customization for changing requirements. These are envisaged for developed / deployed technologies of C-DOT. Major activities under this scheme include enhancements of existing deployed technologies, namely, MAX, RAX, NMS (local, TAX, GSM), Call Interception System, IN, NGN / MAX-NG, GPON,SDCN,CSMP,SGRAN etc., for feature addition, component obsolescence, bug-fixing with new releases, etc.	73.74	Technology Support	Accomplishments as follows: • SG-RAN system installed at Sakalwara, Bangalore, BSNL network as pilot deployment in the field for trial with live traffic. • C-DOT solution for Voice provisioning over FTTH services is operational in 200 cities. Expansion to other cities is ongoing. • Validation & testing of MAX-NG has been completed. These systems are operational in the field at 4 sites of BSNL network and have proved field worthy. Planning for mass migration of MAX to MAX-NG systems is in-progress. • Regular on-site /& off-site technology support is being provided. Revenue collection for support services is as planned.		
11	Campus Infrastructure	Construction of residential facilities for CDOT staff at Delhi R&D campus area, to further enhance environment for R&D.	4.00	Residential facility	Statutory approvals awaited from relevant authorities.	• Receipt of statutory approvals, short listing of the contractor & mobilization of resources to commence the construction are expected to be achieved during the financial year.	
		Total	**290.00**				