

Proposed Ten Year Development Plan (2006 -2016)

Telecommunications

1. Introduction

The modern telecommunications infrastructure is an essential requirement for rapid economic and social development of the country. Sri Lanka is moving towards a fully liberalized telecommunications market environment. At present there are 04 Fixed Access Operators, 05 Cellular Mobile Operators, 06 Data Communications and Internet Service Providers (Facility based), 23 Data and Internet Service Providers (Non facility based) and 32 External Gateway Operators. The telecommunication sector consists of approximately 1.9 Mn fixed access subscribers, 5.4 Mn Cellular subscribers, and 0.13Mn Data communication (Internet & Email) connections and 7500 public pay phones spread across the country.

Growth of Fixed and Mobile Telephone Subscribers

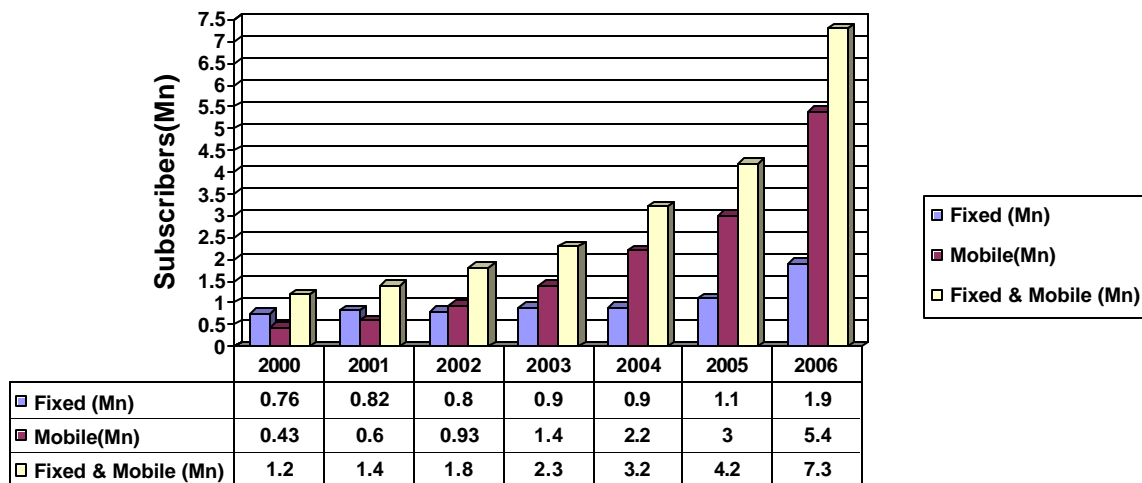


Fig. No 1 : Growth of fixed and mobile subscribers (2000-2006)

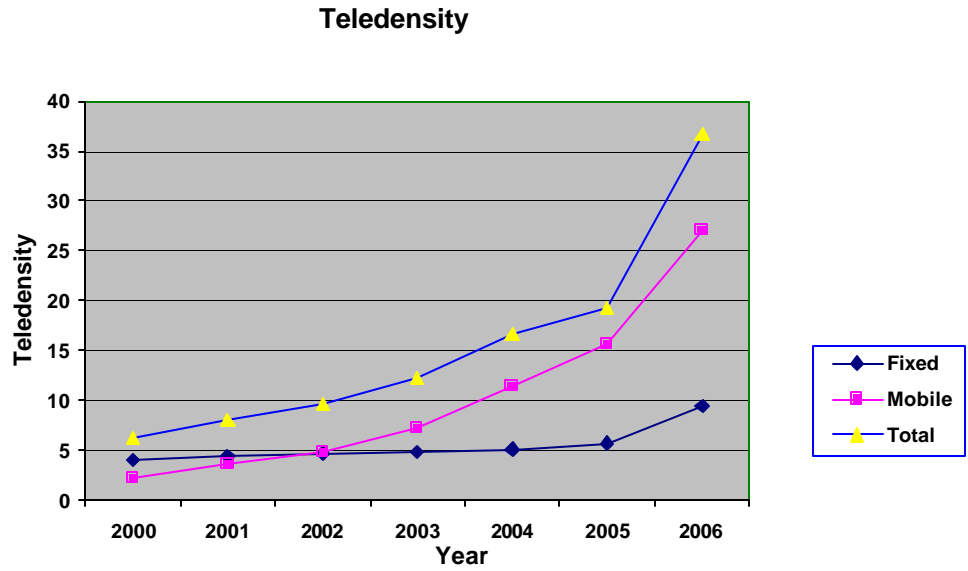


Fig. No 2 : Fixed, mobile and total teledensity (2000-2006)

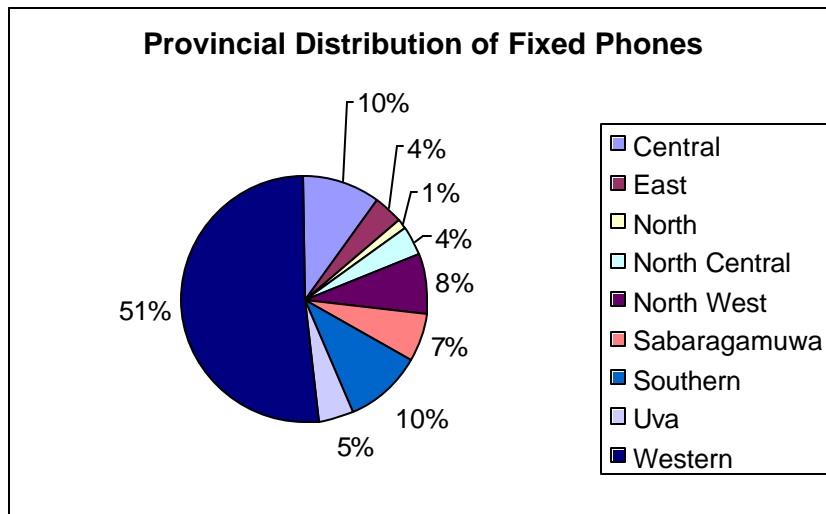


Fig. No 3: Provincial Distribution of Fixed Phones (Sept.2006)

2. Issues in the Telecommunications Sector

- Reluctance to share infrastructure facilities among operators (national backbone, switching capacity, last mile connections) and between sectors (Sri Lanka Railways, Ceylon Electricity Board, Road Development Authority etc.)
- Some of the local authorities are not co-operative when issuing approvals for the development of towers. There are no clear guidelines for site approvals.
- Lack of a seamless interconnection regime.
- Inefficient usage of the allocated frequencies.
- Lack of a coordinated plan in implementing the Universal Service Obligation or universal access requirements.

There is a wide disparity between urban and rural areas in the country in terms of the availability of telecommunications facilities.

- Inability to afford access to internet and broadband services both in urban and Rural areas.
- Lack of effective Quality of Service management mechanism
- Non availability of an effective surveillance mechanism to monitor compliance with provisions in the Act and conditions in the licence.
- Insufficient enforcement powers in the Telecommunications Act.
- High increase in annual rentals charged by local /urban authorities for payphones.
- Convergences in technologies have posed new regulatory challenges in the traditional sectors telecommunications, broadcasting and Information Technology.

3. The Vision for the telecommunications sector is “availability of good quality, affordable and effective choices of communications for all individuals with the use of modern advanced telecommunications Networks”.

4. Targets for the next 10 years

It is important to keep pace with the rapidly developing technology in the telecommunications industry. Therefore the medium term objective would be to develop a nation wide sophisticated telecommunications network using fibre optic cable, microwave and satellite systems to link rural and urban areas with the rest of the world. Accordingly, the following sector targets have been set

- Increase the fixed teledensity (number of fixed access telephones for every 100 persons) from 9.0 in 2006 to 30.0 by 2016.
- Increase the number of Cellular subscribers from 5.4 Mn in 2006 to 16 Mn by 2016.
- Increase the number of Data communications (Internet and Email) connections from the current level of 0.13 Mn to 5.0 Mn by the year 2016.

5. Future Directions

- To launch a satellite in honour of the world renowned space scientist the late Sir Arthur C. Clarke.
- National fibre optical backbone network to meet broadband requirements of the country.
- Develop/establish a tower building as a national icon to serve infrastructure requirements of the communications industry.
- A well-developed telecommunications network provides a range of services to domestic and corporate subscribers including domestic and international voice, Internet and data services.
- At present, several commercial institutions in Sri Lanka have begun to operate their businesses through on line electronic commerce systems and this will only benefit people in some of the urban areas. By the year 2016, with a well expanded telecommunication network, activities relating to electronic commerce can be expanded island wide and there will be adequate opportunities to use these services.
- With the establishment of a common telecommunications system with internet facilities in every village, people can access the global market to ascertain the latest news, share information and find local and international markets for their products.
- There are employment opportunities available in the ICT sector both locally and internationally but the availability of trained persons in this field is limited. Necessary steps will be taken to open training centers for training youth specially rural areas and people with disabilities in ICTs in order to equip them for employment in Sri Lanka and abroad.

- With the help of telecommunication network infrastructure throughout the country people will be able to access on line services provided by public institutions such as financial institutions, Department of Immigration and Emigration, Registrar of births and deaths to streamline the issue of passports and birth certificates.
- To provide at least one pay phone to every Grama Niladhari Division or village.
- Formalize site approval process with clear guidelines for the development of towers.
- Promote the content development in areas such as education, business, commerce, tourism, agriculture, foreign employment, entertainment etc.
- Promote migration from traditional markets to modern technology based business methodologies.
- To deploy broadband connectivity to promote Information Communication Technologies to enable services such as Business Process Outsourcing (BPO), Knowledge Process Outsourcing (KPO)
- Promote effective competition by ensuring a level playing field.
- Introduce and promote international best practices.
- Promote more alternative international backbone connectivity for the country (Submarine fibres, satellite etc.) at affordable rates.
- Promote local software and hardware research & development and for use in manufacturing industries.
- Improve access of rural population and marginalized groups without gender bias to telecommunications facilities to facilitate and enforce the implementation of universal access throughout the country.
- An effective and efficient spectrum management regime to bridge the digital divide in the rural and urban areas.
- Revamp the licensing regime to accommodate changes in technology and industry requirements.
- Strengthen the Telecommunications Act for effective regulation and to accommodate the fast moving technologies.
- Preparation of a National Telecommunications Plan for disaster situations.
- Publication of standards for human exposure to radio frequency radiation.
- Develop a consumer code for telecommunication services. The operators' level of economic efficiency and responsiveness to customer needs will improve with regulator's intervention.

6. Policy Highlights

6.1 Investment

The better relationship and cooperation between the public and private sectors lead to a rapid development of the telecommunication sector. Hence private sector investment is further encouraged and facilitated by creating a conducive level playing field.

6.2 Regulator

The Telecommunications Regulatory Commission (TRC) is responsible for regulating and monitoring the development of the telecommunications sector and for ensuring that competition in the market is as open, fair, and effective as possible.

The responsibilities of the Commission include the following:

- Remedy information asymmetries that may preclude the creation of a proper competitive environment
- Encourage Competition for consumer interest.
- Facilitate interconnection
- Establish a general framework of non-burdensome, non discriminatory and transparent licensing with open entry where appropriate;
- Regulate joint ventures, mergers and acquisitions.
- Price regulation
- Consumer protection
- Regulation of bottleneck facilities and scarce resources
- Ensure Universal Access
- Emergency disaster preparedness and management.
- Enforcement of provisions in the Act

The regulator's decision making process to be transparent to enable greater stakeholder consultation for the purpose of taking well informed decisions. These processes will save tedious time consuming expensive litigation.

6.3 Regulation of Scarce Resources

6.3.1 Spectrum Management

Development of the communication sector is very much dependent on the use of the radio frequency spectrum. Efficient management of this scarce resource among competing users is a main responsibility of the Regulator. An important priority is to reinforce the planning and allocation as well as the spectrum assignment, monitoring and enforcement. Prior to finalization of the allocation of frequencies the views of the stakeholders will be obtained where applicable by the Regulator. The Regulator will, furthermore, review and establish a fair and proportionate scheme of pricing for the use of spectrum. This price will reflect the value, which will maximize the economic efficiency of the use of the spectrum. The regulator will monitor effectively unutilised and under utilized spectrum to ensure efficient usage of same.

6.3.2 Rights of Way

In order to ensure fair competition, minimize cost and public inconvenience, and protect the environment, access to public rights-of-way, towers, telephone poles, underground conduits, international undersea cables, international undersea cable landing *stations*, and other physical support structures shall be shared among operators to the maximum extent. To ensure greater access, the access barriers for satellite and undersea cables will be removed except where statutorily mandated licensing is required. Moreover International access should be liberalized without limitation to the types of services, which could be provided. The owner of a shared facility will be responsible for its maintenance and for the connection and engineering of other occupiers' equipment. Such owners or other affected parties may petition the Regulator to require restrictions or other limitations on facility access, where competitive or technical problems may arise from such sharing.

Legislation should be modified to ensure that the Regulator has jurisdiction and authority to ensure that operators have reasonable and timely access to necessary public rights of way, subject to appropriate local safeguards and operator liability for costs and damage, and to consultations with relevant authorities.

6.3.3 Sharing of Resources

Shared use and related costs will be allocated equitably among all operators occupying a facility. The Commission shall facilitate and review negotiations concerning the terms and conditions, including cost allocation, for such shared users. The Regulator shall also establish requirements to allow competing operators to co-locate their equipment on each others premises, under similar terms and conditions subject to regulator review and intervention in disputes.

6.3.4 Access to Space Segment

The Regulator will be responsible for ensuring that access to space segment is transparent and non-discriminatory for all licensed operators.

6.3.5 Numbering Plan

The Regulator will ensure that the allocation of numbers are in accordance with ITU E.164 standard.

The Regulator will promote the introduction of number portability in Sri Lanka, to the extent this is technically and economically feasible. The Regulator will ensure that all operators who are allocated blocks of telephone numbers contribute to the maintenance of a universal directory database, which will be maintained under the supervision of the Regulatory Commission on a shared, non-discriminatory basis, and available to all telephone operators and customers at reasonable cost

6.4 Market Structure, Liberalization, and Competition

The promotion of the widest possible development and availability of information and communications technologies and services in Sri Lanka is encouraged. These services will be provided in an open, market-oriented environment, which allows private sector companies maximum flexibility to develop the sector in response to consumer demand and public needs. Traditional limitations or barriers to market entry will be reduced or eliminated in favour of a liberalized environment which allows the forces of the market and technology to determine

the most effective means to provide services to end users. The primary role will be to facilitate fair and effective competition in all market segments, while supporting the expansion of the industry to the greatest extent possible. In regulating the market due regard would be paid to actively encourage the introduction and / or replace with new equipment, technology and services which would lead to greater efficiency and effectiveness in the provision of communication services.

6.4.1 Telecommunications Market Structure.

The present market structure for telecommunications services in Sri Lanka consists of various distinct market segments, which have been defined by traditional technological and service characteristics, and by the terms and restrictions contained in operator licenses. The changing market and technological forces in the industry, the communications market structure in Sri Lanka should evolve towards a technological & service neutral, open and convergent status subject to regulatory consideration. Certain distinctions may remain for purposes of licensing, regulation, and competition policy, for example between public switched access networks and dedicated transmission networks, or for those services dependant upon scarce resources.

6.4.2 Manufacturing, Construction, and Equipment Supply

The growth of domestic capacity to manufacture telecommunications equipment, is encouraged. Such equipment should conform to Mutual Recognition Arrangements, which will be defined by the TRC in consultation with stakeholders and in reference to international best practices. All companies operating in these markets shall be treated in a competitively neutral, non-discriminatory manner, whether they are independent or affiliated to telecommunications operators.

Construction of telecommunications network facilities by operators or subcontractors must conform to local and national standards for quality and professionalism.

6.4.3 Licensing

In order to encourage maximum participation in the sector, the regulator's licensing regime will be non-discriminatory, and transparent. It is recognized that some licensees would require the use of scarce resources, which the regulator in its assessment considers should be assigned restrictively.

6.4.4 Competition Policies and Enforcement

Establishment of a comprehensive framework to ensure fair competition is critical for effective market development, as such all anti-competitive practices would be discouraged. This framework will consist of all the policies, procedures, regulations, rules, and the necessary administrative structure to provide for non-discriminatory allocation and administration of public goods, unbundling of network components, licensing, equal access availed to customers, dispute resolution, and access to information.

6.5 Universal Access

Access to diverse and unrestricted sources of information and means of communication permits Sri Lankans to take informed decisions in their daily lives. The Information Infrastructure will not be complete until it reaches all locations and people throughout the country, and provides reasonable and affordable access to the full range of traditional and emerging information and communications services. Access to these services must also take into account different needs among the user population, including considerations of gender, age, ethnicity and linguistic distinctions, and people with disabilities. Access should be available at high transmission speeds utilizing state-of-the-art technologies.

The regulator shall develop specific indicators of access to communication services, which is reviewed and monitored periodically, consistent with international experience and precedent in this area, and shall identify appropriate targets for moving towards universal access nationwide within a reasonable time frame.

The commission shall promote such technologies to be used in Sri Lanka specially for hearing impaired and visually handicapped citizens. Accessibility to people with physical impairments specially wheel chair users will be considered when constructing public payphone booths.

6.6 Tariff Regulation, Quality of Service and Consumer Protection

6.6.1 Tariff Regulation

Tariff regulation is an essential element in the telecommunications sector, especially when market competition is limited. The formulation of tariffs will be done taking into account the interest of consumers as well as investors. Consumers will benefit from rational charges and investors will be benefited from a reasonable rate of return on their investments. TRC will intervene in the determination of tariff with the aim of fostering competition, eliminating cross subsidy (for different services) and ensuring value for money. The regulator's tariff assessment practices will aim to establish cost-based prices for all services and will be subject to periodic review.

6.6.2 Quality of Service

The Commission shall publish parameters of measurements of quality of service availed to the customer. The Commission shall adopt a policy of zero tolerance for deviation from published norms. The operators shall file in such information periodically enabling the Commission to assess the quality of services and shall afford the Commission an opportunity to monitor the same through independent investigation. The commission shall adopt a policy of recognizing test results of accredited independent institutions both in determining the quality of service of the network and the quality of equipment.

The regulator will clear commercially viable bands to allocate to public telecommunication services for the provision of better quality services at lesser cost.

6.6.3 Consumer Protection

The TRC is responsible for protecting consumers of telecommunications services from unfair and deceptive marketing practices, and from unwarranted use of private customer information. The regulator shall establish regulations for monitoring and preventing such behaviour, including penalties for operators who violate these standards. The regulator shall establish formal complaint review procedures, and shall require all licensed and authorized telecommunications operators and service providers to establish their own procedures for responding to customer complaints concerning inappropriate behaviour and violations of privacy. The regulator shall also implement a public awareness campaign to inform customers of their rights and options, and to publicize the regulator's activities and invite public participation.

6.7 Emergency Communications

TRC is responsible for preparing a national disaster management plan for the telecommunications sector. The regulator shall co-ordinate emergency communication activities with all related Government agencies and telecommunication operators.

6.8 International Relations and Trade

The development of the telecommunications sector cannot be disassociated from Sri Lanka's international relations and trade policies. This development depends, firstly, on foreign investment that must be attracted to the country and secondly on a healthy export market for the services produced by this and other dependent sectors.

The Ministry in charge of the subject and the regulator will also ensure that sector related commitments of Sri Lanka to the World Trade Organization (WTO) and similar organizations are implemented. The regulator will also have the mandate to propose changes and or additions to Sri Lanka's commitments to WTO on telecommunications.

6.9 Human Resource Development

Well trained human resource in the telecommunications sector plays an important role in achieving the sector objectives. The Government of Sri Lanka will open training centers for this purpose. Close interaction between these educational institutions and market players is necessary. The human resource development programmes should be linked to the advancements in technology and e-culture.