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TELECOM

OVERVIEW

Rural Network Expansion

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It is expected that with the growth of telephone and other telecom facilities, the so called digital divide between urban and rural areas will be a thing of the past in the very near future

IN 1996, THE total number of phones in India were 119.3 lakh of which 27.03 lakh was in rural areas. The teledensity both in urban and rural areas was very low by any standard despite continuous efforts by the Government to increase telecom penetration. With a view to provide greater access to telephones, a policy to encourage PCOs was made. As a result, despite having lower telecom penetration than many other countries, general public had some sort of access to telephones for making urgent and essential calls. It was around this time that the Department had a general policy to provide at least one phone in every village. As a result, almost 5 lakhs out of the 6 lakh villages had a public phone by the end of 1990's. Telecom policy drawn in 1994 and 1999 brought up policies for improving the dismal telecom scenario. In 1999, it was

proposed that teledensity in rural areas should reach atleast 4 % by the end of 2010 with a view to bring about inclusive growth and provide better connectivity in all areas of the country.

Mobile telephone services were introduced in the country in 90's. Initially due to the exorbitantly high tariff both for outgoing and incoming calls, mobile telephones were a luxury and status symbol with practically no presence in rural areas. There was a gradual reduction in tariff, resulting in a very slow increase in the mobile telephone numbers. The rate of adoption of mobile telephone increased only after some major policy initiatives of the government which helped in bringing down the tariffs. Around this time, licencing conditions also mandated that all licencees should roll out services in rural areas within a stipulated period.

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However, the roll out of mobile services in rural areas was not on expected lines. It was realized that the roll out of telecom services in the rural areas was not happening because this was a loss making proposition for the operators.

After taking into account the experience gained and international practices, Universal Service Obligation Fund was set up in 2002. This Fund was mandated to provide the viability gap for telecom services in rural areas which would not otherwise be rolled out because of lack of commercial viability of the services. The ambit of the Fund was extended from basic telephony to cover the entire range of telecom services from 2006 onwards. After the expansion of the scope of the Fund, the following services are being supported:-

- (i) Stream-I : Provision of Public Telecom and Information Services
 - (a) Operation and maintenance of Village Public Telephone in the revenue villages identified as per Census 1991 and installation of Village Public Telephone in the additional revenue villages as per Census 2001.
 - (b) Provision of additional rural community phones in areas after achieving the target of one VPT in every revenue village.
 - (c) Replacement of Multi Access Radio Relay Technology VPT installed before 1.4.2002.

- (ii) Stream-II : Provision of household telephones in rural and remote areas as determined by the Central Government from time to time.
- (iii) Stream-III: Creation of infrastructure for provision of Mobile Services in rural and remote areas.
- (iv) Stream-IV: Provision of Broadband connectivity to villages in a phased manner.
- (v) Stream-V: Creation of general infrastructure in rural and remote areas for development of telecommunication facilities.
- (vi) Stream VI: Induction of new technological developments in the telecom sector in rural and remote areas.

The resources for implementation of USO are raised through a Universal Service Levy which is 5% of the adjusted gross revenue of all Telecom Service Providers except the pure value added service providers like internet, voice mail, email service providers etc. In addition, the Central Government may also give grants and loans. The balance to the credit of the Fund does not lapse at the end of the financial year. Credits to the Fund are being made through Parliamentary approvals.

In 2004 when the Government drew up the Bharat Nirman programme to address the issues of lack of various facilities in rural areas, telephone services were also included under this on realizing that in modern times this

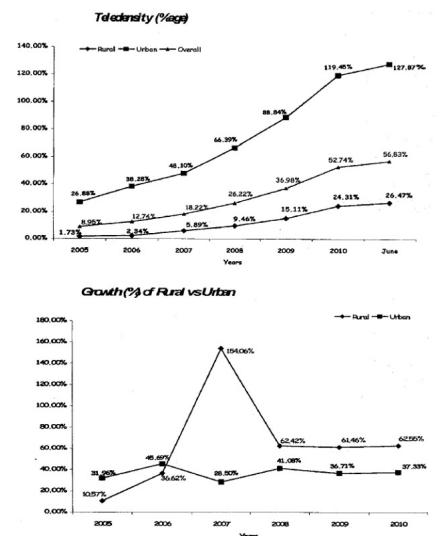
constituted a basic need for rural populace. Under Bharat Nirman, it was proposed to establish a VPT in all the villages uncovered till then with this facility. More than 60000 villages have been covered under this programme so far.

A scheme was launched by USOF to provide subsidy support for setting up and managing 7871 number of infrastructure sites/towers (since revised to 7387) in 500 districts spread over 27 states for provision of mobile services in the specified rural and remote areas, where there is no existing fixed wireless or mobile coverage. Villages or cluster of villages having population of 2000 or more and not having mobile coverage have been taken into consideration for installation of the tower under this scheme. The infrastructure so created shall be shared by three service providers for provision of mobile services. The agreements effective from 1.6.2007 have been signed with the successful bidders in May 2007. As on 31.8.2010, 7206 towers have been set up under this scheme. The remaining towers are under different stages of installation.

Due to this programme and the rapidly increasing competition amongst mobile operators on account of the Government's policy to increase competition in all areas, tariffs have come down substantially and are now practically the lowest in the world. Teledensity has also increased rapidly surpassing all projections. This is reflected in the Graphs 1 and 2 given below.

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In 2009, it was felt that broadband should be given much greater push as this was one area of telecom connectivity which had no substantial growth especially in rural areas. Thus, while formulating Bharat Nirman-II, the key targets relating to telecom were changed to ensure provision of broadband

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services to all Gram Panchayats numbering about 2.5 lakhs by 2012. It has also been proposed to achieve a rural telephony of 40% by this time. At present the telephony of the rural areas is about 26% and about 97000 Gram Panchayats have been provided with broadband facility.

Out of a total number of 98 lakhs broadband connections in the country at present, only about 6 lakh are in the rural areas. USOF has given financial support for a scheme for provision of wireline broadband in about 28000 locations covered by wireline telephone exchanges of BSNL to provide about 9 lakh broadband connections within three years in rural areas.

Department of Information Technology has undertaken a programme to set up 1 lakh Common Service Centres throughout the rural areas of the country. CSCs would provide e-Governance and broadband facilities through a Kiosk operated by franchisees. This would also help in addressing the problem of rural populace not being able to take advantage of the facilities provided by broadband such as e-governance, tele-medicine etc. on account of low broadband penetration due to affordability issues.

With the recent successful completion of 3G and BWA spectrum auction, the stage is set for provision of wireless broadband facility in rural areas also. It is expected that the uncovered areas of the country would rapidly be

given broadband coverage as this technology is rolled out in rural areas. USOF is in the process of formulating a scheme to support wireless broadband in rural areas which is expected to give a major boost to the introduction of broadband in hitherto uncovered areas.

One of the major constraints in increasing telecom services in rural areas has been lack of grid power. Even when the sites are connected to the grid, availability of power is very erratic and unreliable. As a result, the cost of operation in rural areas is much higher than in urban areas which have more reliable power connections. The average revenue per user (ARPU) in rural customer is also much lower than the ARPU in urban users. These factors adversely affect the economic viability of operations in rural areas. As already explained, USOF has been taking various steps to address these issues. Specifically, to meet the problem of lack of power, USOF has initiated some pilot projects. In one such project, USOF has tied up with TERI to provide solar charging of mobile handsets in an extension of TERI's Light a Billion Lives project. In future, USOF will support the use of renewable energy in rural installations in consultation with Ministry of New & Renewable Energy.

The sense of isolation in extremely remote areas in the country which have hardly been provided with any facilities such as road, rail, electricity, telecom etc. can only be imagined. Such

a situation prevails in many of the hilly, unapproachable border areas and forest areas of the country. In the programme to provide VPT in all habitations, USOF has been supporting the use of satellite technology in telecom services in such areas not connected by terrestrial connectivity. These installations are powered by solar cells with adequate battery backup so that they do not have to depend on electricity connections. As a result of this, telecom services have been provided in about 5365 locations of the country at present. A scheme to provide broadband through these installations in some of the locations is also under formulation. This will help in provision of e-governance and telemedicine facilities in these areas.

Thus, the progressive policies of the Government have introduced competition and helped in reducing tariffs. With the setting up of USOF, telecom services are being provided in the rural areas of the country at an accelerated pace. As a result, India has the second largest number of telephone connections in the world (6716.86 lakh, as on June 2010) with lowest tariffs. The numbers are constantly growing and it is expected that with the growth of telephone and other telecom facilities, the so called digital divide between urban and rural areas will be thing of the past in the very near future.

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