Technology for Rural Development
Role of Telecommunication Media in India

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ABSTRACT
The media scenario in India has undergone a spectacular change since Independence. From the days of bullock cart, we have traveled down the modern age of satellite technology and cyberspace. The country has been witnessing a revolution in communication technology. Ever since the beginning of planned development in the country, the role of mass media in the development process has been recognized significantly. With the launching of grass roots democratic structures, followed by vigorous efforts to implement Right to Information, Rural Health Mission, Drinking Water Mission, Rural Electrification, Rural Employment, Empowerment of Women, and renewed enthusiasm to spread the light of Literacy, the mass media is now at an advantageous position to meet the challenges of rural uplift in this 21st century. Rural upliftment has always been a prime concern of all governments in India. The Indian economy is pre-dominantly rural. More than 72 per cent of the Indian population reside in villages and rural areas. Rural women are a vital part of Indian economy and one-third of national labour force and a major contributor to the survival of the family. Government is making continued efforts to provide equitable growth opportunities to rural women by the ways of empowerment and upgrading the information infrastructure in rural and remote areas. For many years now, the press, particularly regional and local vernacular press, the All India Radio and the national television Doordarshan have been putting out programmes for benefit of the rural people. The recent boom in satellite television combined with government’s decentralization policy in telecommunication sector have been in the process of transforming the rural information and communication infrastructure to a great extent. In this paper, a detail study has been carried out how the telecom media has been flourishing and contributing towards the rural development process in India.

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Introduction

Advancement in information and communication technologies (ICT) has demonstrated opportunities to the people to utilize it in their socio-economic and cultural development in a better and more sophisticated way. By utilizing it, the government finds the importance and role played in delivering services at the locations convenient to the citizens. The rural ICT applications attempt to offer development ideas and solutions to the people who are deprived of basic human facilities such as safe drinking water, diary, education, immunization, reproductive health, employment generation, human rights, etc. Similarly, the government and administration try to exploit the technological explosion by utilizing the ICT in offering improved and affordable solutions to these basic necessities of the people at their village doorsteps.

Towards the beginning of 21st century, in India, we have witnessed at our disposal a technology of which our forefathers could only dream—a technology which can transform local happenings into global events and which can reverse the trends towards divergence. That is the technology of telecommunications and most crucial aspects for the development of rural India. Rural telecommunication has been an important area on which the government has been giving sustained emphasis since seventies. Lots of incentives have been made available to the rural areas to bridge the gap between urban and rural areas in terms of access to telephones. The department of telecommunications (DoT) has taken series of measures, such as: booking with concessional registration fee/tariff and introduction of new technology to stimulate demand for telephones in rural areas. It is believed that as telephones gets cheaper and accessible to rural areas, it would definitely initiate tremendous transformation in various aspects of rural society, particularly in the rural economy.

Thus, telecommunications is a reflection of economic activity of a society. In order to remedy the rural-urban telecommunications gap, it is necessary to address the economic gap in living standards between regions. In its consultation paper on ‘Growth of telecom services in rural India’, The Telecom Regulatory Authority of India (TRAI) has expressed concern over the low telephone penetration in the rural area. The Authority noted that despite several attempts over the last more than 10 years, the gap between penetration of telephony in rural (1.7 per cent) and urban (19.7 per cent) areas is widening and measures need to be taken to reduce this gap. However, the telecommunications revolution offers new hope to the developing countries, particularly to India.
With only 5 telephones per 1000 population in rural areas, and with a significant number of those phones not working all time, India lags much behind of the world ratio, including many developing countries, when it comes to rural telecom access. With around 70 per cent of the India’s population living in rural areas, improving rural tele-density is an important goal of the Indian government. One of the stated goals of India’s National Telecom Policy-1999 is to achieve 4 per cent telephone density in rural India by the year 2010. Though it is a little bit difficult to reach at the target within the time-frame period, but the pace in which the developments in the telecom sector in India is presently going on, to reach at the target may not be a distant dream.

Indian Telecom Revolution

The reforms undertaken in the telecommunication sector since 1991 has resulted in unprecedented growth of the telecommunication in India. At the time of Indian Independence (1947), the newly formed nation had 84,000 fixed telephone lines for its population of 350 million. Thirty-three years later in 1980, the number of telephones raised to 2.5 million and 12,00 public telephones for a population of 700 million, out of which only 3 per cent of India’s 6,07,491 villages had telephone service where more than 75 per cent of the country’s population resides. Today, India is having 100 million telephone network is one of the largest in the world while in terms of number of phones, our country stands fifth largest network after China, USA, Japan, and Germany. With a shift from Hexagonal Policy in 1980-91 to Grampanchyat Public Telephone Service in 1991-94, the quantity of public telephones in rural areas rose from 48,828 to over 2,06,000 in 1991 and in total by 1999 India had an installed network of over 25 million telephone lines spread over 300 cities, 4,869 towns, and 3,10,897 villages. The real telecommunication revolution in rural India occurred during 1988-98, the number of villages with some sort of telephone facility increased from 27,316 to 3,00,000 villages (half of all India’s villages). During the first year of the present UPA government from May 2004 onwards, an all time growth has been achieved by adding 2.36 crore phones where as the number of phones provided in the country up to 1995 was only about 2.2 crore. By 2000, it was about 6,50,000 PCOs providing reliable telephone service all over India including remote, rural, terrain, and tribal areas.

Similarly, the position with regard to rural Direct Exchange Lines (DELs) increased from 16.48 lakh in 1995 to 122.72 lakh as on 31 March 2004 in rural areas. The government has sanctioned Rs 200 crore for Universal
Service Obligation (USO) fund to support the operation and maintenance of more than 5.3 lakh village public telephones (VPTs) and rural DELs. Presently, more than 87 per cent of the Indian villages have already been covered by VPTs provided by BSNL. Besides, apart from these, BSNL has also provided all 133 lakh rural DELs in the country. The latest form of communication revolutionizing both urban and rural (to some extent) India is mobile telephony. It was in 1995 introduced in India and just after 3 years, the user capacity was around one lakh cellphone users in four metro cities and another 5,00,000 or so cellphone users existed in other towns and cities, a number that is very quickly progressing. The year 2003-04 showed a record growth of 40 per cent in the total number of telephone connections (fixed+WLL+CMPs). The total number of telephone connections as on 31 March 2004 were 765.4 lakh comprising 464.8 lakh fixed lines and cellular connections provided by BSNL and MTNL and 300.6 lakh by private sector. The latest information shows that the total number of phones as on end of September 2005 (both mobile and land line) rose to 1128.8 lakh out of which 478.3 lakh were land line phones while 650.5 lakh mobile phones. India has set itself a target of 2500 lakh telephones by 2007, of which around 2000 lakh are expected to be on mobile network. To meet the target, the country should be adding around 50 lakh telephones every month.

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<tr>
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<th>2005-06</th>
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<th>(all in lakhs)</th>
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<td>March 31</td>
<td>June 30</td>
<td>September 30</td>
<td>Addition</td>
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<tr>
<td>Mobile</td>
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<td>573.8</td>
<td>650.5</td>
<td>128.3</td>
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<tr>
<td>Landline</td>
<td>459.1</td>
<td>469.0</td>
<td>478.3</td>
<td>19.2</td>
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<th></th>
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<th>(all in lakhs)</th>
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<td>March 31</td>
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<td>Addition</td>
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<tr>
<td>Mobile</td>
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<td>394.7</td>
<td>429.8</td>
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</tr>
<tr>
<td>Landline</td>
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<td>434.5</td>
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The tele-density which was 5.11 per cent as on 31 March 2003 has increased to 10.38 per cent by October 1, 2005. In recent past, it was calculated that every moth more than 20 lakh phones get added (i.e., 70,000 persons are provided phones everyday). In terms of rural telephony, according to the available data as on 31 March 2004, of the total 6,07,491 Indian villages, 5,22,347 villages (86 per cent) have covered with village public telephones (VPTs). Similarly, it is noticed that the participation of the private sector has given major boost in growth and development of telecommunication system from 21 per cent to 39 per cent during the
period 31 March 2003 to 31 March 2004 in both urban and rural area. Out of additional 219.2 lakh telephones connected during the period, 186.1 lakh were provided by the private sector. Besides, a continuous positive shift has been observed in the use of mobile telephony in recent past and contribution of private sector in this regard is highly remarkable. The share of mobile (cellular mobile phones (CMP)+Wireless in Local Loop (WLL-fixed) which has increased from 23.77 per cent as on March 31, 2003 to more than 44 per cent (261.55 lakh CMPs and 75.45 lakh WLL) as on March 31, 2004. The users preference in favour of mobile phones against fixed phones continued and as a result of mobile phones grew by about 160 per cent while the fixed phones grew by 3 per cent during the above said period. Based on the resources availability of the Bharat Sanchar Nigam Limited (BSNL), India’s largest government-owned telecom company, it plans to provide 367.67 lakh new connections during Tenth Five Year Plan (2002-07). The following table gives the broad details of expansion programme envisaged by the Company during the Tenth Plan.

<table>
<thead>
<tr>
<th>Type of Phones</th>
<th>Urban (in lakh lines)</th>
<th>Rural (in lakh lines)</th>
<th>Total (in lakh lines)</th>
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<tbody>
<tr>
<td>Fixed</td>
<td>80.00</td>
<td>0.90</td>
<td>80.90</td>
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<tr>
<td>WLL</td>
<td>51.00</td>
<td>11.93</td>
<td>62.93</td>
</tr>
<tr>
<td>Mobile</td>
<td>222.00</td>
<td>01.84</td>
<td>223.84</td>
</tr>
<tr>
<td>Total</td>
<td>353.00</td>
<td>14.67</td>
<td>367.67</td>
</tr>
</tbody>
</table>

The future growth of telecommunication scenario in India seems to be quite bright. It is estimated by 2007, the country will have 250 million telephone connections, out of which 180-200 million telephones will be mobile phones. By the same period, the tele-density in our country will rise to 22 per cent and around 50 per cent contribution in this sector would be provided by public sector operators. It is also expected that by 2007 every village in India will be connected with telecom network, the mobile phones would play a major role in this endeavor. Similarly, the growth of telecommunication network would pave the way for internet revolution in our country. It is estimated that internet connection will rise to 18 million by 2007 from 5.4 million in December 2004. If the telecom connections rise as per the estimation and target, it is expected further 40 million internet connections by 2010. With the increasing competition among service providers in telecom sector, it is expected that the tariff rates will come down benefiting the consumers.
Telecommunications and Rural Development

The telecom sector in India has witnessed a substantial growth rate in last decade. The Ninth Five Year Plan aimed at providing telephone on demand, achieving universal convergence, and ensuring the world standard services. The Plan had also categorically identified on rural connectivity as its top most goal. In the line with the broad objectives of the National Telecom Policy-1999, and the objectives envisaged in the Tenth Plan, the telecom sector during the Plan period has targeted to achieve telecom coverage to all villages in the country and provide reliable transmission media in all rural areas with achieving an overall tele-density of 9.91 by March 31, 2007. Universal access to telecommunication is being interpreted by the government in India as providing a public telephone in every village. The strengthening of rural communication services is an important ingredient for the welfare and development of rural India as it has many advantages such as:

- It helps in access to health care and other allied services in the time of urgency.
- It gives timely information on business, price, market, and demands within few minutes and that to paying a very small amount of price.
- It helps in better coordination for delivery of administration and public services including health, education, etc.
- It provides information about employment and generates opportunities to women and underprivileged people regarding self-employment and income resources.
- It interacts with neighbouring market regarding business expansion and creates more job opportunities in the local market.
- It creates an atmosphere of national and regional integration, economic diversification, employment, and promotes socio-cultural relation.
- It also opens gateway to the foreign participants in rural sector and establishes a spirit of competitiveness with the Indian players in development of rural infrastructure and economy.
- Besides, in the present era of information technology, the telecom services are important for all round development of the society.

Though about 70 per cent population of India live in the villages and rural areas account for about 30 per cent of the gross domestic product (GDP), the development in this sector is far from satisfactory. The tele-density in rural areas is only 1.14 against 10.16 in the urban areas. Viewed
from the general accessibility point, about one-third of the total villages in the country are yet to be connected by basic telecom facility. The Tenth Plan has given due importance and taken policy initiatives for promoting rural telecom services. To accelerate speedy growth in rural telecom sector and building a strong base of the rural economy following points must be given due emphasis on priority basis, these are:

- Rural telecommunications is much more than providing accessibility through VPTs. It means provision of all services including multimedia to individuals as per demand. Keeping in view the objectives of National Telecom Policy-1999, the policy has to be promotional in nature.
- Specific emphasis needs to be given on encouraging business-based development of rural telecommunications through private entrepreneurship utilizing the related schemes of the government.
- Given the special suitability of the WLL technology for rural services, WLL-based limited mobility services in the rural areas may be treated on par with basic services, and not as value added services, and priced accordingly.
- An open and transparent franchise policy for rural areas must be worked out to enable the franchisee to provide telecom facility on a revenue sharing basis.
- Taking into the issue of affordability, internet telephony may be included as part of the business model. To encourage usage and consequent generation, priority attention shall have to be given to the development of content and applications of interest to rural masses.
- Evolving appropriate mechanism for regular monitoring of progress of rural telecommunications both at circle and national level.

As telephone gets cheaper and widely accessible across the country, the real life of rural people of the country would definitely undergo a tremendous transformation, providing the needed impetus for development. Telecommunications has become especially important because of the enormous growth of IT and its potential effect on the economy. There is much to do with regard to improvement in the field of telecommunication’s participation in rural development in India. Increasing access of telephone in rural areas is especially critical given that most of poor people cannot afford their own telephone service. They may only need to use a telephone a few times a month, which is not enough to justify having their own telephones. Access to the means of
telecommunications, transformation and dissemination of information is crucial for human development when we talk in terms of knowledge-based society and globalised competitive economic environment.

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