DEVELOP A GLOBAL PARTNERSHIP OF DEVELOPMENT

OPevelop a Global Partnership for Development

8.1 India's economy has undergone a substantial transformation since the country's independence in 1947. Agriculture now accounts for only onefifth of the gross domestic product (GDP), and a wide range of modern industries and support services now exist. Starting in 1991, India began to implement trade liberalization measures, which have improved market access and consequently increased labour participation in a number of export-led sectors. An integrated Macro-economic policy framework to address all related issues and objectives in this context including trade, debt, official development aid, financing for development, 'good governance,' a 'global partnership for development', as well as such concerns as youth employment, small island states and land-locked countries, access to affordable essential drugs and access to information and communications technology has been provided under Goal 8 of the MDGs. Goal 8 also frames the trade debate solely in terms of market access for goods from developing countries to developed countries. This raises the larger question about the need for fair trade; for open, democratic and transparent trade negotiations; for more equal terms of trade; and for rules that do not over-ride local and national economic policy making and democratic decisionmaking (in terms of labour law, environmental law, human rights law and affirmative action, among others).

8.2 Automation and technological

advancements have exposed unskilled workers, especially women and the industries where women are predominantly employed. The adjustment costs of trade liberalization vary from sector to sector and industry to industry. Where industries are competing to match production cost and delivery price of their competitors, female workforce often becomes the immediate target. In the above backdrop, a gender-analytical approach has identified the key mechanisms and pathways by which, globalization, WTO and related agreements impact on women in terms of social adjustment, employment, wage levels, poverty reduction, empowerment and overall economic and social well being. Especially in the post-globalisation and the post-WTO context, women in India today are related to the global economy to a very great extent as producers, entrepreneurs, service providers, consumers and citizens. Most women in the informal economy have no direct access to markets but either work as casual workers for wages or as piece rate workers for trades and services. In view of the pace at which technology and markets advance today, it becomes important that women are given the opportunity to undergo capacity development and skill up-gradation in the new and emerging areas. Gender impact assessments are being carried out so as to formulate minimal policy positions on sectors like agriculture and food processing, textiles and clothing,

handicrafts and handlooms, fisheries and marine products, etc, where women's share in employment is between 55 to 65 per cent. Adequate safety nets are being provided to the most disadvantaged, especially women. Further efforts are on for improving infrastructure and enterprise and market development skills of women workers and entrepreneurs. Capacity building and training of the women in industry - the entrepreneurs, the workers, and service providers is now prioritised to help women face the challenges of globalisation.

8.3 Trade has to be addressed from a gender perspective too as trade rules encroach on other areas such as services, agriculture, intellectual property rights and investment. This includes mobilization and advocacy to impact WTO negotiations and regional trade deals. Gender analysis of trade explores the roles women and men play in the economy as producers, traders and consumers, and how trade accords affect them in those roles. For example, dumping of cheap food imports, which devastates local markets mainly affects women, who are primary food growers. The migration of males from rural areas to the cities in search of work, sometimes within a country and sometimes across borders increased risk of trafficking and diseases. Women, too, are migrating in increasing numbers to provide income for themselves and families at home, as jobs and livelihoods disappear at home. Remittances become a major source of development financing, but at a major cost for women migrants. Gender bias in access to credit and export facilitation may hurt women entrepreneurs who seek to export, as does lack of access to long-distance transport. GATS also will have a huge impact on all the MDGs that imply delivery of key services, as well as regulations such as environmental protections or labour and gender equality requirements.

Telecom Sector Development

8.4. India faced tremendous challenges when it set on its ICT journey twenty years ago. The ICT industry, at a very nascent stage, appeared far behind its Western counterpart. The PC revolution was yet to encompass the country, the telecom infrastructure was low and there was virtually no indigenous software or hardware development to talk about. Today, in 2006/07, the scenario has undergone an amazing transformation. The Indian ICT industry, in particular the IT software and services and ITES sectors, have not only managed to catch up with their more technology savvy global leaders, but they are also being actively sought by companies worldwide for their onsite, offshore expertise and wealth of manpower resources. Indian ICT organizations are now counted among the well known and reputed ICT solutions and services providers across the world and scores of global ICT leaders have invested in India, making the country their hub for software development, offshore outsourcing and R&D.

8.5. Telecommunication sector in India has witnessed a dramatic transformation on almost all the fronts and has received national recognition as the key driver for development and growth. With monopoly giving place to competitive regime, tariffs have declined drastically. The share of private sector has increased tremendously and mobile telephony is becoming predominant in the sector. Consequently, the structure of telecom services which till recently was considered as an elitist luxury has undergone a complete change and has now become a necessary good of mass consumption. The importance of telecom sector can be gauged from the immense contribution it is making to other sectors of the economy particularly the Information Technology industry. The change is clearly visible in the areas of e-business, ebanking, e-education, e-health, etc.

Several studies have shown a strong correlation between the growth of telecom sector and Gross Domestic Product.

8.6 The total number of telephones, which was only 80,000 in 1948, gradually increased to 4.589 million in 1990. The first National Telecom Policy (NTP) was announced in 1994 with the primary objective of "telecommunication for all and within the reach of all". By 1999, the number of telephones increased to 22.8 million lines. This was a quantum jump in relation to the past performance. The total number of telephones (Fixed + Wireless) increased from 22.8 million in 1999 to as high as 207 million in March 2007. The number of

wireless phones increased from only 1.2 million lines in 1999 to over 166 million lines in March 2007. Consequently, the overall tele-density, which was only 0.67% in 1991, increased to 2.33% in 1999 and stands over 18% in March 2007.

8.7. **Community Access:** In addition to normal phones, community access has been provided through Public Call Offices (PCOs), Village Public Telephones (VPTs) and Rural Community Phones (RCPs). The number of PCOs has increased from 1.62 lakh in 1993 to 5.20 lakh in 1999 and now stands at about 24 lakh. In addition, 28 lakh PCOs have been provided by the private operators. Out of 607,491 villages,

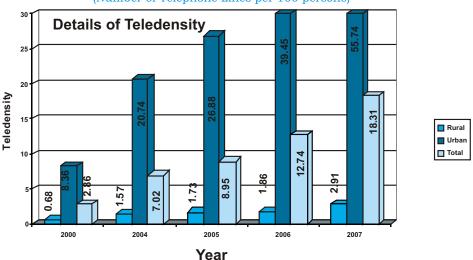


Fig. 33: Teledensity in India (Number of Telephone Lines per 100 persons)

Status of rural telecom services (as on 31st March 2007)

- Rural teledensity of 2.91 as compared to the urban teledensity of 55.74 and an overall teledensity of 18.31.
- There are 29203 BSNL exchanges in rural areas having optical fibre connectivity.
- So far 564610 villages in the country have been connected using a Village Public Telephone (VPT) of the BSNL and private operators.
- Out of the remaining 66,822 villages (having more than 100 population and not lying in thick forest area etc.) to be provided with VPT facility, 46969 VPTs have been provided till March 2007. The remaining villages are likely to be provided with this facility by November 2007 in phased manner.
- There are 23.31 million connections in rural areas owned and operated by BSNL.

VPTs have been provided in 564610 villages by March 2007. Barring villages with less than 100 population, all the villages are likely to be covered by VPTs by 2007 through Universal Service Obligation Fund (USOF). RCPs are to be provided in 46,253 villages where population is more than 2000 and there is no public telephone facility (PCO) other than a VPT.

8.8. **Private Sector Participation:** Prior to 1999, there were very few private operators in the field. With the announcement of NTP 1999, large number of private operators has been given licences. Out of 60 cellular mobile licences, 37 licences have been issued to private sector. Similarly, 97 Unified Access Service Licences including migrated basic,

migrated cellular and new have been issued as on 31st January 2007. Further, for other services such as NLD, ILD, Internet, VSA Infrastructure Provider Services, private sector has taken a substantial share of the licenses granted. The share of private telecom operators in the total phones provided in the country has increased to about 65.48% as on March 31, 2007. As such, of the 207 million total phones, private sector has contributed about 135.44 million phones as on March 2007. Thus, in the liberalized policy regime, the private sector has been encouraged to provide the required telecom services, which in turn has contributed to healthy competition in the sector.

Goals for Telecom Sector

1. Network expansion

- ♦ 250 million connection by the year 2007 & 500 million connections by the year 2010
- ♦ Provision of mobile coverage of 85% geographical area by 2007
- ♦ 45 MHz of additional spectrum from defence to be made available for growth of mobile services in the beginning of the year 2007.

2. Rural telephony

- One phone per three rural households by the year 2007 (about 50 million rural connections) and one phone per two rural households by 2010 (about 80 million rural connections)
- Mobile access to all villages with population more than 5,000 by the year 2006 and more than 1,000 by the year 2007

3. Broadband

- ♦ Broadband coverage for all Grampa-nchayats by the year 2010
- Broadband coverage for all secondary and higher secondary schools by the year 2007
- Broadband coverage of all public health care centers by the year 2007

4. Manufacturing, R&D

- Making India a hub for telecom manufac-turing by facilitating more & more telecom specific SEZs.
- Providing platform for export promotion of telecom equipment and services by setting up Export Promotion Council IFDI of US \$2 billion in telecom manufacturing by 2007
- ♦ A Center of excellence in telecom technology in PPP mode by 2007. It shall cater to the requirements of South East Asia region also.
- ♦ Mobile handsets will be made available at a price of about Rs. 1,000 with in one year.

Table 8.1: Number of Telephones/ Mobile Phones(in million)

	1999	2002	2006	March 2007
No. of Telephones (Fixed Lines)	21.61	38.29	40.23	40.77
No. of Mobile Phones (CDMA)	-	0.25	32.67	44.62
No. of Mobile Phones (GSM)	1.20	6.43	69.19	121.43
No. of Internet Subscribers	0.21	3.23	6.96	8.61

89 The exponential growth in the telecom sector has been mainly due to the positive and proactive policies consistently pursued by the Government. The Government efforts have been in the areas of high growth, affordable tariff, reducing the digital divide, thrust on the manufacturing and job creation, strengthening the public sector, technology advancement, public-private partnership and R & D. The series of policy measures include introduction of cost effective technology neutral telecom services, introduction of New Telecom Policy 1999, setting up of an independent regulator i.e. Telecom Regulatory Authority of India (TRAI) to decide/ recommend tariffs and other policy measures along with setting up of Telecom Disputes Settlement and Appellate Tribunal (TDSAT) to adjudicate on the telecom disputes. The major services freed for competition are - basic and mobile telephony, NLD and ILD services, Internet, provision of infrastru-cture etc. Some of the policy initiatives taken after 2000 include (1) Bharat Sanchar Nigam Ltd. (BSNL) was formed in October 2000 i.e. service providing functions were taken out of government. (2) National Long Distance (NLD) service was opened. (3) Calling Party Pays (CPP) regime introduced. (4) Unified Access licence regime introduced. (5) Interconnection Usage Charges (IUC) implemented. (6) Extensive growth of wireless. (7) Outdoor/Indoor usage of low power systems delicenced. (8) FDI limit increased to 74%. (9) Custom Duty

removed on all ITA-1 items. (10) Indigenous manufacturing by global player being encouraged. (11) USO Fund established. (12) Intra-circle M&A guidelines announced. (13) ISPs allowed for laying of copper cable. (14) Broadband Policy announced. (15) Performance Bank Guarantee reduced for ILD and IP-II. (16) One- India plan was introduced by BSNL & MTNL, offering long distance call across the country at uniform rates of Rs. One per minute. This tariff was emulated by most of the private service providers also. (17) Project has been launched for vacation of 45 MHz spectrum by Defence Forces by providing alternate telecom network for them. (18) Project for sharing of mobile infrastructure by mobile operators has been launched to facilitate sharing of infrastructure and reduce network operating expenses. (19) SACFA siting procedure has been simplified for sites more than 7 kilometres away from the nearest airport and having height less than 40 metres. This will reduce the lead time for creation of cellular infrastructure. (20) The Indian Telegraph Rules have been amended to provide for support from USOF for provision of mobile services and broadband connectivity in rural areas.

All these efforts have resulted in rapid growth of the telecom sector in the country, while also ensuring that India has one of the lowest telecom tariffs in the world.

8.10 Telecom manufacturing in the country has taken off with the growth of telecom services. In the last two years most of the renowned telecom companies setting up their manufacturing base in India. Ericsson has set up GSM Radio Base Station Manufacturing facility in Jaipur. Elcoteq has set up handset manufacturing facilities in Bangalore. Nokia set up its manufacturing plant in Chennai. LG Electronics set up plant of manufacturing GSM mobile phones near Pune. Ericsson recently launched their R&D Centre in Chennai. Flextronics is setting up an SEZ in Chennai. Two more SEZ in telecom sector

Table 8.2
Telephone lines and Cellular subscriber per 100 population

	31st March 2007			31st March 2006			31st March 2004		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
STATEs/UTs									
Andhra Pradesh	3.11	63.03	19.62	2.34	43.22	13.45	2.33	22.70	7.85
Assam	1.35	62.04	9.92	0.73	37.03	5.67	0.56	1.47	2.13
Bihar	0.88	64.15	7.52	0.66	45.15	5.34	0.50	11.64	1.67
Chhattisgarh	0.99	11.28	3.24	0.51	7.84	2.09	0.47	6.02	1.63
Gujarat	3.71	55.93	24.14	2.69	39.51	16.98	2.52	22.46	10.14
Haryana	4.50	63.15	23.11	3.10	39.33	14.47	2.42	22.01	8.38
Himachal Pradesh	11.66	179.40	29.33	7.25	118.14	18.78	5.51	51.12	10.14
J&K	9.92	33.58	16.08	0.85	44.49	12.18	0.61	10.12	3.01
Jharkhand	1.08	11.33	3.43	0.58	11.18	2.99	0.45	7.34	2.00
Karnataka	3.18	64.06	25.05	2.63	43.17	17.06	2.41	22.58	9.46
Kerala	14.44	88.68	33.54	10.65	68.40	25.54	8.60	32.82	14.87
Madhya Pradesh	1.16	43.52	12.68	0.79	23.90	7.12	0.68	12.91	3.99
Maharashtra	3.98	48.74	18.78	2.80	34.45	13.10	2.31	19.99	8.00
North East-I	2.55	63.79	16.99	1.29	30.45	8.11	1.08	10.89	3.35
North East-II	2.89	22.58	7.41	1.26	19.80	5.21	1.01	9.07	2.71
Orissa	2.24	49.19	9.78	1.16	41.65	7.57	0.95	13.86	2.95
Punjab	7.44	83.42	37.05	5.29	63.57	27.61	4.81	38.25	17.33
Rajasthan	2.89	56.08	15.49	1.67	35.43	9.65	4.50	14.83	1.32
Tamil Nadu	4.49	45.49	22.55	2.99	29.99	14.70	2.35	17.21	8.54
Uttaranchal	4.36	23.19	9.50	1.84	22.72	7.46	1.48	15.17	5.10
UP(E&W)	1.33	45.26	10.77	1.55	30.09	6.87	0.47	12.24	2.96
West Bengal	1.81	51.95	8.80	1.13	33.04	5.53	2.18	9.79	2.18
Kolkata	0.00	45.21	45.84	0.00	33.70	33.70	0.00	18.92	18.92
Chennai	0.00	73.90	75.46	0.00	61.08	61.08	0.00	38.81	38.81
A&N Islands	14.17	23.00	17.39	8.80	34.20	17.97	8.40	17.50	11.56
Delhi	0.00	86.89	86.89	0.00	65.40	65.40	0.00	41.79	41.79
Mumbai	0.00	64.99	64.99	0.00	56.73	56.73	0.00	36.08	36.08
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
India	2.91	55.74	18.31	1.86	39.45	12.74	1.57	20.74	7.02

Gujrat+Dadar&NagarHaveli+Daman&Diu; Kerala+Lakshdweep; Maharastra+Goa-Mumbai; Meghalaya+Mizoram+Tripura; Arunachal Pradesh+Manipur+Nagaland; Tamilnadu+Pndicherry-Chennai; W.B.+Sikkim

- * State-wise data is not compiled. Telecom Circle wise information in respect of Public DELs, Pvt. DELs, CMPs and WLL (Fixed & Limited) is presented here.
- ★ For Telecom purpose in Delhi, Total Telephones are considered as urban

in advance stage of approval. Proposals implemented/ under implementations of US\$ 620 million in telecom sector. Major companies like Motorola, Foxconn, Aspocomp etc., decided to set up their manufacturing bases with an investment of about US\$ 650 million.

Information Technology

8.11 The year 2006 witnessed a revalidation of the Indian Information Technology - Business Process Outsourcing (IT-BPO) growth story, driven by a maturing appreciation of India's role and growing importance in global services trade. Industry performance was marked by sustained double-digit revenue growth, steady expansion into newer service-lines and increased geographic penetration, and an unprecedented rise in investments by Multinational Corporations (MNCs) - in spite of lingering concerns about gaps in talent and infrastructure impacting India's cost competitiveness. The sector looks set to close the year at record levels, with the revenue aggregate growing by nearly ten times over the past 10 years.

8.12 The software and ITES exports from India grew from US\$ 12.9 billion in the year 2003-04 to US\$ 23.6 billion in 2005-06. It is estimated that total software and ITES exports from India will exceed US\$ 31.3 billion during the year 2006-07. Software and services exports are likely to beat forecasts and exceed 32 per cent in dollar terms during the year 2006-07.

Major Initiatives in Information Technology Sector

National e-Governance Plan (NeGP)

8.13 The Nat ional Common Minimum Programme adopted by the Government accords high priority to improving the quality of basic governance and in that context has proposed to promote e-Governance on a massive scale in areas of concern to the common man. On June 14,

2006, the Department of Information Technology in a major initiative unveiled various components of the ambitious National e-Governance Plan (NeGP) covering 27 Mission Mode Projects and 8 support components to be implemented at Central, State and Local Government levels, at an estimated cost of Rs. 23,000 crore over the next five years.

Common Service Centres (CSCs)

8.14 As part of NeGP a scheme to establish 100,000 broadband-enabled Internet Common Services Centres (CSCs) in rural areas of the country to connect the citizens of rural India to the World Wide Web has been approved with a total outlay of Rs. 5,742 crore and is being implemented in Public Private Partnership (PPP) model and is expected to create one lakh direct jobs and 2-3 lakh additional indirect jobs.

State Data Centre

8.15 Under NeGP, it is proposed to create State Data Centres for the States to consolidate services, applications and infrastructure to provide efficient electronic delivery of G2G, G2C and G2B services. These services can be rendered by the States through common delivery platform seamlessly supported by core Connectivity Infrastructure such as State Wide Area Network (SWAN) and Common Service Centre (CSC) connectivity extended up to village level. Revised \guidelines for technical and financial support for establishment of State Data Centre (SDC) were issued during January 2007.

State Wide Area Network (SWAN)

8.16 Government has already approved a scheme for the establishment of State Wide Area Networks (SWANs) at a total outlay of Rs.3,334 crore over a period of 5 years. These SWANs will extend data connectivity of 2 Mega bits per second up-

to the block level in all States and Union Territories in the country. The block level nodes in turn, will have a provision to extend connectivity further to the village level using contemporary wireless technology. Under the scheme, proposals from 24 States/UTs have already been sanctioned.

E-District

8.17 In the budget of 2006-07, it was announced that 'It is Government's intention to bring a number of services online'. Accordingly, the Department has approved 2 pilot e-District projects covering 6 Districts in UP and 2 Districts in Assam. The objective is to computerize the backend workflows at the District level with appropriate Business Process Reengineering (BPR), to reduce the work load at the district level, ensure fast processing of cases/ grievances, enable better monitoring of various government schemes.

Special Incentive Package Scheme for Semiconductor Fabrication and Micro & Nanotechnology Manufacture Industry

8.18 India is fastest growing market for electronic products in the world. Consumption expected to grow to \$363 billion by 2015, from \$28 billion in 2005. India to account for 11% of global electronics market by 2015, compared to 1.8% in 2005. India is likely to consume \$36 billion of semiconductors in 2015, accounting for 6% of global market.

8.19 The semiconductor industry and other high tech industries are characterized by specific constraints that challenge their viability. These are highly capital intensive and have to deal with constantly changing technology. It therefore, becomes imperative on part of the Government to create a conducive

environment for manufacturing and offer a package of incentives comparable with other countries to attract global investments into the manufacturing sector as well as help bridge the viability gap due to lack of adequate infrastructure and ecosystem.

Review of Information Technology Act

8.20 The Information Technology Act, 2000 provided a legal framework for transactionscarried out using computers and the internet technologies. As the technology is an ever-evolving process for providing efficient and cost effective options, it was felt that a fresh look to the technology driven law needs to be given. With proliferation of e-governance and other information Technology applications, security practices and procedures relating to such applications need to be strengthened. The Information Technology Amendment Bill was introduced in the Parliament on 15 December 2006 and has been referred to the Parliament Standing Committee.

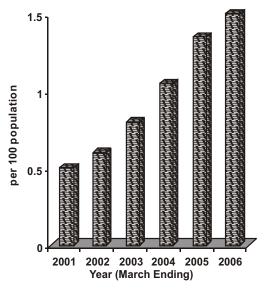
Indian Language Technologies

8.21 India is a multilingual and multi script country. There is, therefore, a need to provide user friendly and cost-effective tools, applications and contents that enable access to ICT infrastructure in Indian languages. As a step in this direction, software tools and fonts for ten Indian languages namely Hindi, Tamil, Telugu Assamese, Kannada, Malayalam, Marathi, Oriya, Punjabi and Urdu languages were released in public domain for free use by the masses. Similar software tools and fonts for other languages are likely to be released during 2007.

Internet Promotion

8.22 The Governmental Advisory Committee (GAC) Secretariat of the Internet Corporation for Assigned Names and Numbers (ICANN) has been set up in the Department of Information Technology and is operational from July 1, 2006. The GAC is an Advisory Committee comprising representatives of national governments, multinational governmental and treaty organizations,

Fig. 34: PCs in use per 100 Population



and distinct economies. The GAC is the key forum to discuss the public policy issues relating to the Internet (standardization, protocols and technology) and affecting the social and economic life of the countries.

8.23 Use of Personal Computers has tremendously increased from 5.4 million PCs in 2001 to 19.63 million in 2006.

Table 8.3: PC population and PCs in use per 100 population

Year(March Ending)	2001	2002	2003	2004	2005	2006
PC Population (in million)	5.40	6.00	8.00	11.00	14.5	19.63
PC in use per 100 population	0.53	0.58	0.77	1.04	1.34	1.80

Fig.35: Internet users and Internet subscribers in India

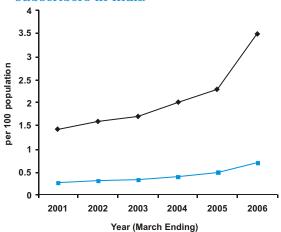


Table 8.4: Internet users and subscribers per 100 population

Year (March Ending)	2001	2002	2003	2004	2005	2006
Internet Users per 100 population	1.41	1.55	1.67	1.93	2.31	3.5
Internet Subscribers per 100 population	0.28	0.31	0.33	0.39	0.46	0.7