

Inaugural address of Smt. D. Purandeswari

Hon'ble MoS (HRD) as Chief Guest

In the seminar on "R & D and Equipment Production in the ICT
Sector in India"

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Osmania University Campus, Hyderabad

Telecommunication is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. It has become especially important in recent years because of enormous growth of Information Technology (IT) and its significant impact on the rest of the economy. India is perceived to have a special comparative advantage in IT and in IT-enabled services. However, sustaining this advantage depends critically on high quality telecommunication infrastructure. Keeping this in view, the focus has to be on the provision of world class telecommunication facilities at reasonable rates. Provision of telecom services in rural areas should be another thrust area to attain the goal of accelerated economic development and social change. Although the telecom network has grown rapidly in recent years, its growth needs to be accelerated further. It is equally important to speed up structural changes in this sector in line with trends in other countries to ensure that telecommunication services are not only made available on the scale needed to sustain rapid growth in the economy as a whole but also that their

cost are in tune with the expectations of a modernizing economy. Before I proceed further, let me mention some of the basic indicators of our telecom services.

Status of Telephone Network – As on 31.03.2002

- Total number of exchanges - 35,023
- Number of rural exchanges – 26,953
- Total Fixed Telephone connections – 385.95 lakh
- Number of Cellular mobile phones – 64.31 lakh
- Trunk Auto Exchange Lines (TAX) – 34.27 lakh
- Tele Density - All India - 4.4
- Number of Village Public Telephones – 4.68 lakh
- Internet Connections – 38 lakh (as on January 31, 2002)

I am given to understand that almost all the network equipment is imported and are of foreign owned intellectual property, developed by the Indians for foreign companies and the import cost thereof amounts approximately to about 25,000 cr per year.

At the time of Independence in 1947, our leaders had a different perception. They set up the Indian Telephone Institute (ITI), in 1948 and telephone cable factories in Rupnaranpur (W.B) and Hyderabad and subsequently a teleprinter factory in Chennai. All equipments required and wanted for the investment were made

in India. We also set up the Telecom Research Center (TRC) in 1956 to create intellectual property (IP) in this sector. It was doing good work but never enough for what the Indian network wanted. Despite the TRC, technology for four generations of telephone switches was imported.

In the first half of the 1980s the Center for Development of Telematics (C-DOT) was set up. Initially it was allowed to flourish. It did design, develop and produce electronic central offices (telephone exchanges) for deployment in the rural areas. That gave a big boost to the quality of telephone services and its extension to rural areas. It also did concurrent engineering and brought into being over a dozen private sector manufacturing companies. In other words, its R&D was oriented to build up Indian capacity. This was the only worthwhile indigenous R&D and production efforts by the Centre for Development of Telecoms (C-DOT) since its inception in the mid-eighties. As a society jointly funded and managed by the Departments of Telecoms and Electronics, it was initially cold-shouldered and even opposed by the monopolist lobby in the DOT. But since it had the late Prime Minister, Sri Rajiv Gandhi's blessings, involvement and inspiration, it did wonderful things, to design, develop and bring into production its own equipments.

The real break-through came when the monopoly of the government companies like ITI was abolished in the early 1990s for the production of transmission equipments, mainly wireless based like multi-access rural radio, micro wave radio etc. A number of private companies in Hyderabad and Bangalore started setting up their own in house development units to produce

systems to the DOT specifications. By the mid 1990s, indigenous private and public sector communications companies gained the capability to compete against foreign companies for radio equipments. Of course, they had to use many imported components and even sub-systems. But this development was short-lived.

Today, China and Korea have stolen a march over India. Korea set up the C-DOTs counter part called Korean Electronics and Telecom Research Institute (KETRI) in 1985 or so. It had a national mission. The government and private companies acted in concert. They are now producing world standard products and are selling all over the globe. Since we don't have national mission and national effort, the 60 year old ITI to-day is reduced to such a position that it is buying technology from Chinese companies.

The National Telecom Policies (NTP) envisaged development of intellectual property (IP) within the country. So a 2% cess was imposed on the sales of the p-telcos to create a R&D fund. The collections had amounted to about Rs. 2000 Crores out of which only an amount less than 1000 fund was given to the C-DOT. The rest of it was diverted to the general pool resources of the Central Government.

Meanwhile Korea, China, Taiwan and even Malaysia went on developing their own IP for telecommunications in rapid strides. All this is because they were motivated by national mission. All of them allowed foreign direct investment (FDI) as well as foreign equipment but from the beginning they had a vision that within a

few years they would create their own IP and fully develop their manufacturing capacities.

On the contrary some of Indian Information & Communications Technology (ICT) engineers (computers & Telecommunications) set up a number of companies in California, USA having their own R&D establishments but they started selling their IP products to American and other companies. China has been successfully persuading the Chinese engineers settled in the US to come and set up R&D labs, manufacturing units and consultancies in China. As a result thereof, Chinese companies started dictating to the world what the standard for forthcoming generations of telecommunications and computer network equipments should be and in the process attained monopolistic position in the field.

As already mentioned, Indian R&D was one of the most recognized and acclaimed design and developing agency in Asia, in the decades of **1980s** and **1990s**.

R&D centers in the premier Telecom and Electronic industries such as Indian Telephone Industries (ITI), Bharat Electronics Limited (BEL), Center for Development of Telematics (C-DoT) were recognized well by other countries in ASIA, Europe and North America.

Contemporary technologies were developed by these R&D centers to make the **Products suitable to the Indian conditions**

and passed on the Technology to most of the manufacturing industries (public and private) in INDIA.

With the introduction of Mobile communication, the Indian R&D and manufacturing sector suffered a set-back. The decline was so fast that within the span of TWO to THREE years, entire R&D activities in the areas of Switching, Transmission and Access products came to a negligible level. The telecom and electronic manufacturing industry has today migrated to screw-driver technology by importing MNC equipment. MNCs with their expertise in Mobile Communication Technology and financial strength have over-taken the entire Telecom Equipment Supplies.

The situation will continue to be the same unless there is a drastic change in our policies on the lines of China and other developing countries.

We must remember that if India aspires to be a prosperous and powerful intellectual country she must create her I.P. We cannot import forever. We cannot imitate forever. All of us should work to achieve this national goal of attaining self-supply in R&D and equipment production in the ICT Sector in India.

With these words, I call upon all professional societies and associations like CTMS, IETE, IE, FAPCCI, HYSEA who have organized to-day's seminar to build up a positive movement for the creation of a national mission in this regard by associating all the stakeholders, telecommunications and service companies,

equipment producers, universities, economists social activists and the like. I wish you complete success in this grand endeavour.

Thank you

Jai Hind.