



**Sustainable Development Policy Institute**

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**Study Group on Information and Communications**

## **Group Activities**

*August 1993-August 1995*

*Programme Head: Dr. Ijaz S. Gilani*

*Project Coordinator: Brig (Retd) Mohammad Yasin*

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# Contents

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Title/Subject	Page No.
<b>Introduction</b>	1
<b>Review of Group Activities</b>	2
<b>Meeting held on July 26, 1995</b>	
• Private Data Network Operation: on Way to Information Superhighway, Issues Resolved, Issues Remaining	11
• Demand Estimates for Telecommunications Services in Pakistan	13
• What's latest on the Internet?	14
<b>Meeting held on April 5, 1995</b>	
• Presentation on Databases and Publications in Social Sectors	45
<b>A Memorandum (April 1995)</b>	
• Agenda for a Dignified Entry into the Twenty First Century Access to International Information Networks	53
<b>Meeting held on March 14, 1995</b>	
• Security Issues Posed by New Telecommunications Technologies	65
<b>Meeting held on November 23, 1994</b>	
• Private Data Networks	87

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<b>Title/Subject</b>	<b>Page No.</b>
<b>Meeting held on May 31, 1994</b>	
• Information and Communications in Pakistan: Directions and Prospects	95
<b>Meetings held on March 31 and April 18, 1994</b>	
• Information and Communications Development Monitor (Index on Current Economic and other Development News)	109
<b>Meeting held on February 3, 1994</b>	
• Satellite Remote Sensing System	115
• Geographic Information System for the Pakistan National Conservation Strategy	120
<b>Meeting held on January 5, 1994</b>	
• Electronic Information Resources	149
<b>Meeting held on September 27, 1993</b>	
• Electronic Network Applications	159
<b>Note to the Prime Minister</b>	
• Development of the Information and Communications Sector in Pakistan	167



## Introduction

**The Sustainable Development Policy Institute (SDPI)** is an independent, non-profit, non-government research institute, established to provide policy advice to the government, NGOs, the private sector, civic and political organizations, and the mass media.

SDPI's broad area of expertise is, as its name suggests, sustainable development; namely development that is environmentally as well as socially sustainable. A specific focus is the implementation of Pakistan's National Conservation Strategy.

To this end, SDPI conducts research from a broad multi-disciplinary and inter-disciplinary perspective on sustainable development, in the following areas:

- Pakistani development experience and policies; including the causes of emerging social and environmental problems; institutional, legal, and cultural aspects of sustainability and development; gender issues
- The analytical foundations of the positions adopted by Pakistan and other southern countries in international forums.

At a general level, the Institute seeks to promote the inclusion of sustainability issues in national and international programmes and discussions. This can translate into assistance to government and other organizations in the framing of laws, the development of appropriate institutions and knowledge systems.

Sponsored by SDPI the **Study Group on Information and Communications** is an informal gathering of consultants, scientists, educationists and economists which meets periodically to discuss and evaluate current developments in the rapidly evolving fields of telecommunications, computers, data processing, networking, mass media, and other issues related to the generation, processing, management, and use of information. Apart from the regular members of the Study Group, outside specialists and professionals are also invited to these meetings to present their views on particular topics. The purpose of these meetings is to create awareness amongst both the public and private sectors of the importance of exploiting useful information resources, address existing difficulties in this respect, and foresee future developments which might have an impact on the national economy and society at large. Where appropriate, the Group serves to devise policy and planning recommendations that may subsequently be pursued with relevant agencies.



## Review of Activities

1. During the last two years (August 1993 - August 1995) the **Study Group on Information and Communications** held nine meetings. The emphasis in the deliberations has been on the efficiency and efficacy of the information and communications infrastructure in Pakistan, the higher tariffs and duty structure, regulatory issues, the non-existent software industry, inadequate Internet connectivity, support to academics and researchers, and institutional development etc. The Study Groups has brought to bear the experience, opinions, and ideas of important scientists, businessmen, academics and technical experts knowledgeable in computers, telecommunications, data networks and satellites.
2. Early 1993 the Study Group formulated some important recommendations for the Federal Government for an overall improvement in the Information and Communications sectors. The Group felt that data networks in Pakistan needed urgent enhancement and improvement to enable Pakistan to reap the fruits of information revolution particularly the **Internet**. Accordingly the Study Group sent the following recommendation to the Government:-
  - a. The country is in dire need of establishing "ELECTRONIC HIGHWAYS" with zeal comparable to the interest in building modern motor ways and road networks.
  - b. The private sector should be allowed free participation in the establishment and operation of private and public data networks to cater to a potentially very large demand for such services which is presently suppressed due to the poor service in this area.
  - c. Rationalize existing data tariffs of the PTC for data transfer, which are extremely exorbitant by international standards and improve its service which is unreliable at best.
  - d. Encourage the use of electronic information interchange by government agencies and facilitate the use of these services by the private sector, banks, travel and hotel businesses, and traders. Establishing network links between universities, research establishments, and libraries would be an important step in strengthening our abysmal educational facilities and is a prerequisite for supporting first-rate academic and scientific research.
  - e. Government policies on computer and communication equipment must be further rationalized. The present surcharges on equipment and duties on spares should be removed in order for the country to truly benefit from the electronic revolution which can immediately open up enormous economic and employment opportunities.



3. The Government's response was positive which is discernable from the various steps it has taken in the direction of privatization and liberalization. Last year the Government issued licences to 15 private data network operators, made some relaxations in the tariffs and duties and upgraded the Pakistan Telecommunications Corporation's data network.
4. We are far from ready for a dignified entry into the twenty first Century. We continue to suffer from inadequate telecommunications infrastructure, exorbitant tariffs and duties, rigid regulations, harsh policies, bureaucratic inertia and indifference.
5. The Study Group has been agitating for the establishment of Regulatory body to respond to the changing needs of the society. The Government have established the **Pakistan Telecommunications Authority**. Hopefully the PTA will rise to the demands and expectations of those involved in the ever expanding field of information and communications.
6. We have been endeavouring to meet the **Parliamentary Committees** for Information and Communications to explain to them the requirements of the changing times in the context of information and communications and suggest various policy actions to catch up with the time. Unfortunately no such meeting could materialize. However, the efforts continue. Simultaneously the Study Group drafted a memorandum for the President of Pakistan depicting the present scenario and making important recommendations. The draft memorandum appears in this publication as Agenda for a Dignified Entry into the Twenty First Century - Access to International Information Networks.
7. The Study Group has provided a platform for face to face meetings between the data network operators, service providers and officials of the Pakistan Telecommunications Corporation and Pakistan Telecommunications Authority. These meetings have helped understand each others problems, criteria for government policies and future plannings etc. These meetings have also helped in the solution of some problems.
8. As a result of in-depth deliberations, the Study Group has framed policy recommendations which will be submitted to the Government after further discussions. These recommendations appear on the next page(s).



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## Policy Recommendations

### Tariff & Duty Structures

#### 1. Lowering of Data Transmission Tariffs

The entire PTC tariff structure and in particular, the tariffs on international data transmission and cost of leased lines, should be lowered and brought in line with other countries. Access to international networks by academics should be free. The cost of this connectivity should be met by the universities who should be given liberal grants for this purpose.

#### 2. Elimination of Import Tariffs on Computers & Communications Equipment

Although computers are subject to lower tariffs, they are still liable to various surcharges amounting to thirty percent or more of their value. Computer software and peripherals like modems, storage and printing devices face even higher tariffs and duties. These should be eliminated immediately to develop and promote the information industry.

### Regulatory Issues

#### 3. Removal of Restrictions on the Use of Data communications Equipment

Unless directed otherwise, all equipment approved by US FCC should automatically be considered approved for use on PTC lines.

#### 4. Removal of Restrictions on Public Information Sources

Many public information sources are subject to obsolete restrictions, mainly on grounds of security. These sources include satellite and aerial photographs, detailed maps and even statistical information in electronic formats, e.g., governments' statistical, financial and meteorological data. Since these data are available from many sources anyway, they do not prevent any large organization from accessing or converting them for its own use. These restrictions, however, obstruct research scholars, analysts and others who might be able to provide useful advice to the government.



## 5. Rationalization of Licensing Agreements for Private Data Networks

Present licensing agreements have too many flaws and impose harsh conditions that hinder rather than facilitate the progress towards the establishment of information and communication infrastructure in the country. The standard agreements should be reviewed to produce more balanced arrangements.

## 6. Enforcement of Copyright Laws

Unless the respect of intellectual and professional property is enforced at the marketplace, local software industry will not be able to take off. It is only a misconception that enforcement of patent and copyright laws goes to the benefit of multinational software houses only. On the contrary, companies like Microsoft (and even Warner Brothers) have already succeeded in curbing piracy of their products considerably. Even in the absence of an adequately strong public policy regarding copyright, they have accomplished it by pooling resources with the local law enforcement agencies in Karachi. These are only the local, much less resourceful software developers that cannot survive the piracy.

## Connectivity

### 7. Full Internet Connectivity

Full Internet Connectivity should be provided through government and private sector service providers immediately.

### 8. Establishment of High Speed International Links

The planned link between Karachi and submarine cable Fujaira should be installed at the earliest possible opportunity. This should be followed up by the establishment of the link to the Trans Asia Europe terrestrial link.

With the involvement of private sector, satellite communication industry should be encouraged. Low and high orbit communication satellites should be launched using Central Asian infrastructure.

## Support to Academics and Researchers

9. Supportive Tariff Policy for Universities, Research Organizations, Libraries, Public institutions for Accessing Global Databases & On-line Information Services.



## 10. Support for Software Development industry

Such support can take several forms:

- a. Declaring Software Development to be an industry, in order to enable it to access financial support and other privileges from financial and government sector.
- b. Providing software industry with fiscal incentives.
- c. Establishment of technology parks with high quality services at low costs.
- d. Support for training of professionals in this area.

## Institutional Development

### 11. Establishment of National Database Development Program (NDDP)

In order to develop the digital content to be distributed on the proposed high speed and high capacity information infrastructure, an independent trust should be formed with an initial endowment funding. Its charter will be to develop a wide variety of indigenous databases and linkages to global information resources. **Private sector should be encouraged to establish NDDP.** Development should be phased out in the following way:

**Machine Readable Data:** Different types of data already exist with isolated governmental, non-governmental, and corporate institutions. These include publications like ADP, PES, news feeds from various agencies and newspapers, on-line services providing information on virtually any subject ranging from stock trading, finance, environment, sociocultural issues to political affairs. These data are already stored in various digital formats and can be integrated into any type of computer based information network for public access, readily and cost effectively.

**Semi-Machine Readable Data:** The case law digests, microfilms and audiovisual libraries from National Archives and Institute of Folk Heritage should be organized into digital formats for high-fidelity storage and electronic distribution.

**New Formation & Linkages:** This phase should include the development and integration of trade directories, phone book, mailing lists, opinion polls, consumer service bureaus and global employment exchanges.



## 12. **Launching Distant Learning Programs On-line**

Several universities in different parts of the world have already started offering undergraduate to postgraduate programs on-line, besides other courses. Syracuse, Walden and Phoenix universities are a few among them. AIOU has a nationwide network of distant learning programs through which it administers its curricula.

In addition to using postal mail system, AIOU can start offering its courses on-line to those who own or have access to any computer. Besides delivering its program, it will dramatically boost the awareness of life on the information highways.

As part of the same package, this new network can also start offering programs from some of the universities mentioned above. Syracuse has already expressed its keen interest to collaborate in the establishment of such programs and networks.

## **Provincial Infrastructures**

13. The provincial governments should be given clearance to go ahead and establish their own comprehensive Information and Communications infrastructures to cater for the needs of the educational institutions, public sector organizations, judicial institutions, law enforcement agencies, health sector setups and development agencies etc. This will involve the establishment of Local Area Networks (LANs) and Wide Area Networks (WANs).
14. The provincial governments should be allowed and encouraged to establish their own full INTERNET nodes for external communications. These nodes could use the PTC's infrastructure or such other infrastructures already established/being established or the provincial governments may establish their own links for external communications.
15. The provincial governments may establish their Provincial Database Development Programmes (PDDP) on the lines of NDDP. This way the NDDP will continuously be fed by the PDDPs.

