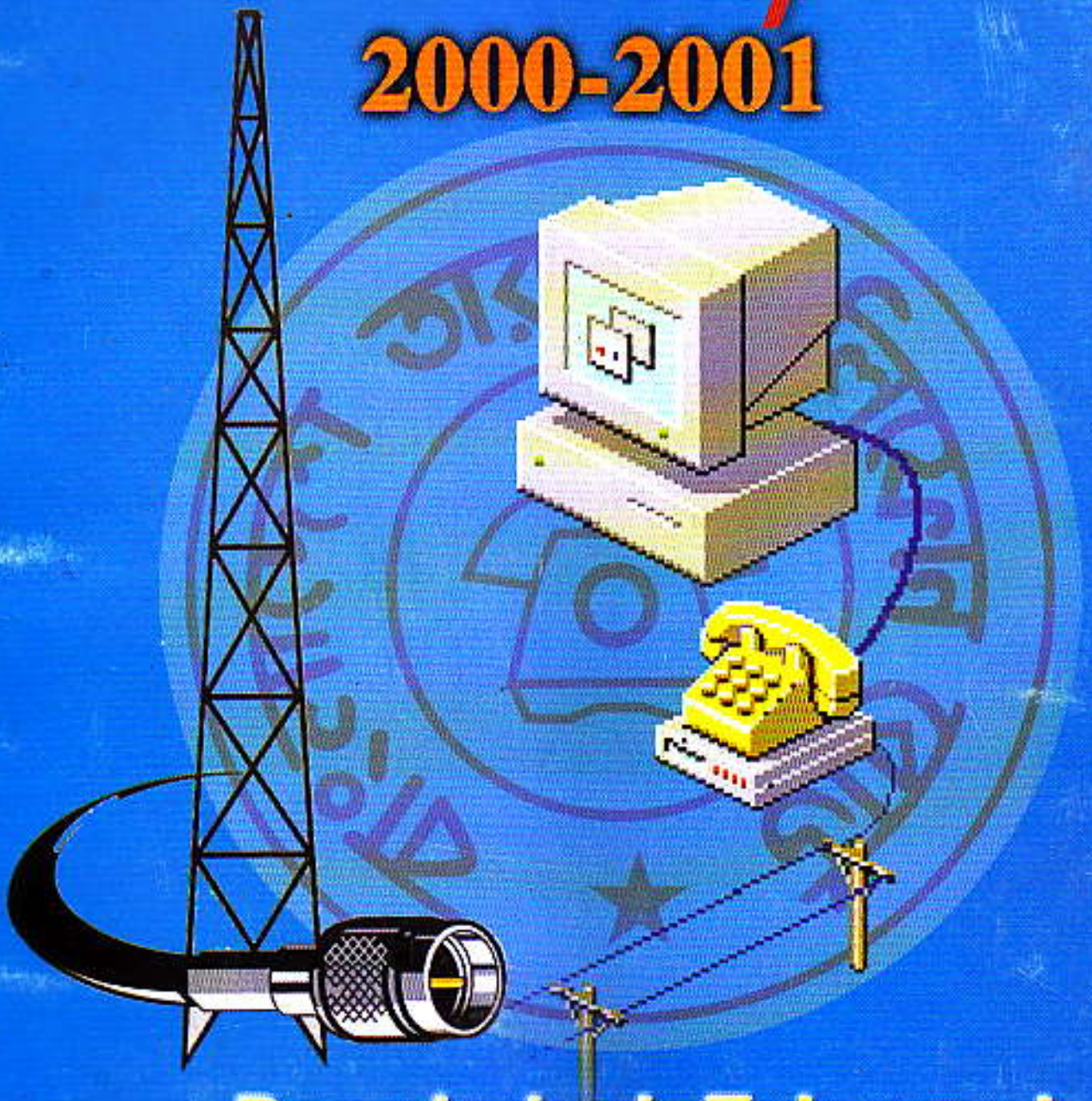
Annual Report

2000-2001



Bangladesh Telegraph
&
Telephone Board

Annual Report
2000 - 2001

BANGLADESH TELEGRAPH & TELEPHONE BOARD.

COMPOSITION OF BANGLADESH TELEGRAPH AND TELEPHONE BOARD

A. CHAIRMAN

Mr. A. F. M. N. H. Choudhury

B. FULL TIME MEMBERS:

1. MEMBER (MAINTENANCE & OPERATION)
   Mr. Monwar Ali

2. MEMBER (ADMINISTRATION)
   Mr. Mazharul Hannan

3. MEMBER (PLANNING & DEVELOPMENT)
   Mr. S. A.T. M. Badrul Houqe

4. MEMBER (FINANCE)
   Mr. Md. Anisur Rahman

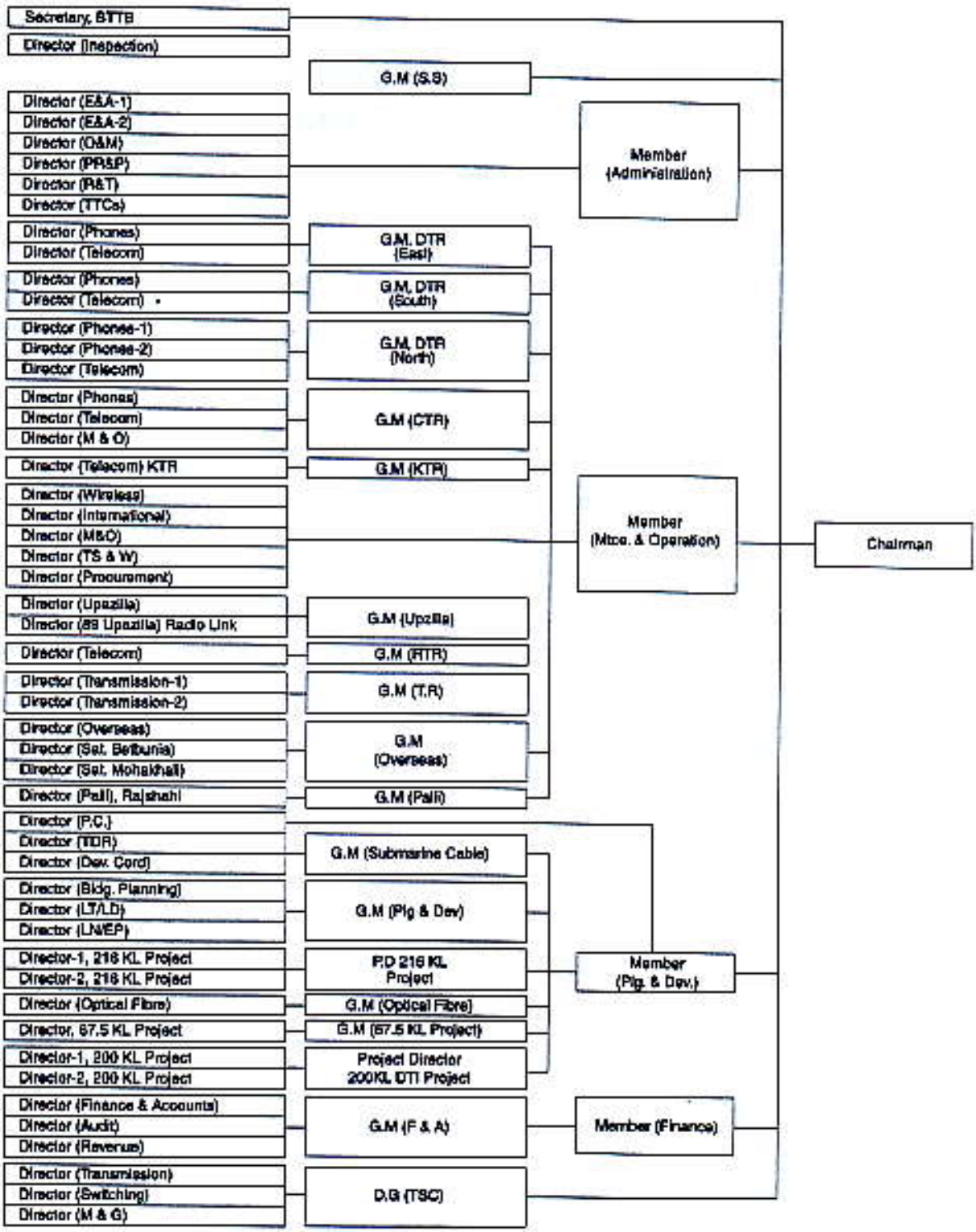
C. PART TIME MEMBERS:

1. Mr. Md.Shafiqul Islam, JS, ERD, M/O. Finance

2. Begum Nilufar Ahmed, DG, PM's office

3. Lt.Col. Md. Neaz-ur-Rahim, Signals, General staff officer-1, AHQ

Organogram of Bangladesh Telegraph and Telephone Board (2000-2001)
Upto Director Level



PERFORMANCE AT A GLANCE

SERVICE CATEGORY	1999-2000	2000-2001
TELEPHONE SERVICES		
No. Telephone Exchanges.	643	662
Exchange capacity	5,79,794	6,88,920
Telephone connections	4,91,303	5,64,880
Public Call Office	695	695
Card phones	1,433	1,445
TELEGRAPH AND TELEX SERVICES		
Inland Telegraph Office	778	848
International Telegraph Office	1	1
Inland Telegram (messages)	440,488	726,766
International Telegraph (Messages)	72,082	106,468
Telex Exchange capacity	8,770	2,000
Connections (Telex)	1,602	1,450
GENTEX Services (Office)	135	135
OVERSEAS CIRCUITS		
Telephone	2,302	2,767
Telex	181	02
Telegraph	11	11
Leased Circuit	05	05
NATIONAL AUTO TRUNK		
NWD Circuits Capacity	32,964	34,893
NWD Circuits Working	22,832	22,770

1. TELECOMMUNICATION ADMINISTRATION IN BANGLADESH

1.1. Historical Background of Bangladesh Telegraph and Telephone Board:

The Telegraph branch under the Posts and Telegraph Department was created in 1853 in the then British India and was regulated afterward under the Telegraph act of 1885. This was reconstructed in 1962 in the then Pakistan as Pakistan Telegraph and Telephone Department After the independence of the People's Republic of Bangladesh in 1971, Bangladesh Telegraph and Telephone department was set up under the ministry of Posts and Telecommunications to run the Telecommunications Services in Bangladesh. This was converted into a corporate body named Bangladesh Telegraph and Telephone Board by promulgation of Telegraph and Telephone Board Ordinance, 1975. In Pursuance of Ordinance No. XII of 1979 promulgated on 24th February, 1979, Bangladesh Telegraph and Telephone Board was converted to a Government Board.

1.2 Organizational Structure of Bangladesh Telegraph and Telephone Board:

Bangladesh T&T Board is run as a government establishment under the Ministry of Posts and Telecommunications (MOPT). The Board Comprises of 1 (one) Chairman,4 (four) full time members and 3 (three) part time members, all are appointed by the government of the People's Republic of Bangladesh .

1.3 Privatization & Regulatory structure of Telecommunication Services:

The Telecom. sector of the country has been liberalized for private investment. Bangladesh T&T Board provides all types of telecommunication services in urban and rural areas while the mobile, paging and radio trunking services are offered by private operators . Private operators were also given license to install and operate digital exchanges in rural areas and they would install telephone exchanges in phases. Table-1 shows the list of the private operators in 2000-2001.

Table-1

Telecommunication Operators in Bangladesh

SL	Name of the Operators	Function
1	Pacific Bangladesh Telecom. Limited (PBTL).	Cellular Radio Telephone services.
2	Bangladesh Telecom. (Pvt) Limited (BTL)	Paging, Radio trunking & Riverine Telecom. services.
3	Bangladesh Rural Telecom. Authority (BRTA)	Establishment, operation & maintenance of Digital telephone Exchanges in 200 Upazilla's.
4	Seba Telecom. (Pvt.) Ltd.	Rural Telecom.Services in 199 Upazilla's and Cellular Mobile Radio telephone systems.
5	Telecom. Malaysia International (BD) Ltd. (TMIB)	Cellular Mobile Radio telephone systems.
6	Grameen Phone Consortium	Cellular Mobile Radio telephone systems.

2.0 TELECOMMUNICATION SERVICES PROVIDED BY BTTB

2.1 Telephone Exchange Status of The Bangladesh T&T Board

At the end of 2000-2001 fiscal year Bangladesh T&T Board had 662 telephone exchanges with total capacity of 6,88,920 lines. BTTB started operating digital local exchanges after installation of six NEC- NEAX 61E exchanges in the Dhaka Telecom. Region Network in 1990-91 fiscal year with initial total capacity of 26,000 lines. Upto 2000-2001 financial year thirty eight, tweenty nine, thirty eight and tweenty six local digital exchanges were installed in Dhaka, Chittagong, Khulna & Rajshahi Telecom. Regions respectively. These were supplied and installed by NEC (Japan), Alcatel (France), Italtel (Italy), Ericsson (Sweden & Mexico), GDT (China) and ZTE (China). Exchange status of BTTB as on June, 2000 and June, 2001 are given in the following Table-2 and Table -3 respectively.

Table-2

BTTB Telephone Exchange Status as on 30 June, 2000

Region	Type	Number of exchange	Capacity	Connection	Pending demand
Dhaka	Magneto	67	5,541	4,489	2,877
	C.B	23	4,045	3,445	1,882
	Auto(Analog)	22	70,200	53,884	1,935
	Auto(Digital)	35	2,68,033	2,23,321	76,835
	SUB-TOTAL	147	3,47,819	2,85,139	83,529
Chittagong	Magneto	104	6,050	4,897	2,011
	C.B	44	7,639	6,530	3,355
	Auto(Analog)	28	21,220	17,734	4,488
	Auto(Digital)	17	75,915	72,997	9,809
	SUB-TOTAL	193	1,10,824	1,02,158	19,662
Khulna	Magneto	73	4,403	3,743	1,304
	C.B	46	7,691	6,987	4,028
	Auto(Analog)	35	26,800	23,462	7,419
	Auto(Digital)	15	32,413	25,712	4,996
	SUB-TOTAL	169	71,307	59,904	17,747
Rajshahi	Magneto	74	3,799	3,197	1,923
	C.B	45	6,677	5,757	4,390
	Auto(Analog)	17	21,200	20,526	4,378
	Auto(Digital)	08	18,168	14,622	3,485
	SUB-TOTAL	144	49,844	44,102	14,176
Country Total	Magneto	318	19,793	16,326	8,114
	C.B	158	26,052	22,719	9,265
	Auto(Analog)	102	1,39,420	1,15,606	18,220
	Auto(Digital)	75	3,94,529	3,36,652	95,125
GRAND TOTAL		653	5,79,794	4,91,303	1,35,114

Table-3

BTTB Telephone Exchange Status as on 30 June, 2001

Region	Type	Number of exchange	Capacity	Connection	Pending demand
Dhaka	Magneto	67	5,380	4,596	3,332
	C.B	20	3,195	2,413	1,965
	Auto(Analog)	19	63,100	31,584	7,711
	Auto(Digital)	38	3,32,750	3,03,005	1,14,197
	SUB-TOTAL	144	4,04,425	3,41,598	1,27,205
Chittagong	Magneto	106	5,993	4,695	3,679
	C.B	41	6,920	5,799	1,121
	Auto(Analog)	26	10,620	8,289	2,555
	Auto(Digital)	29	1,09,195	88,939	20,530
	SUB-TOTAL	202	1,32,728	1,07,722	27,885
Khulna	Magneto	66	4,208	3,609	1,260
	C.B	31	5,795	5,361	1,849
	Auto(Analog)	34	23,800	21,117	5,789
	Auto(Digital)	38	50,816	36,382	18,181
	SUB-TOTAL	169	84,619	66,469	27,079
Rajshahi	Magneto	69	3,671	3,016	1,836
	C.B	40	6,213	5,183	3,861
	Auto(Analog)	12	10,200	9,700	2,252
	Auto(Digital)	26	47,064	31,192	8,992
	SUB-TOTAL	147	67,148	49,091	16,941
Country Total	Magneto	308	19,252	15,916	10,107
	C.B	132	22,123	18,756	8,796
	Auto(Analog)	91	1,07,720	70,690	18,307
	Auto(Digital)	131	5,39,825	4,59,518	1,61,900
GRAND TOTAL		662	6,88,920	5,64,880	1,99,110

2.2 Public Telephones:

Several years back public telephone services used to be provided through coin boxes in the urban areas and land line/ wireless Public Call Offices (P.C.O's) in the rural areas. Service quality of these public telephones had been far from satisfactory. To improve the public telephone service, Card Phone systems were introduced in 1992 with programs of replacing the old coin boxes and P.C.O's . By June 2001, about 1,445 card phone booths were installed in different parts of the country . All cardphones have access to nation wide dialing while 737 of them have international direct dialing facility. Due to better and easy public accessibility to telephone this cardphone service has become popular in the country . A massive program of installing card phones has been taken to cover all thanas and rural growth centers of the country.

2.3 Telegraph Services.

Telegraph system, the oldest means of telecommunication service, is loosing importance gradually due to introduction of more modern telecommunication systems . In the fiscal year 2000-2001, the total number of domestic telegram messages were 726,766 and that of international telegram was 106,468. Number of Telegraph Offices were 849. A comparison of year wise telegram messages are shown in Table4.

Table - 4

Year wise Telegram Messages.

Year	No. of National Messages	No. of International Messages
1996-97	1069,358	53,962
1997-98	756,293	104,115
1998-1999	759,537	108,309
1999-2000	440,488	72,082
2000-2001	726,766	106,468

2.4 Telex Service

The first digital Telex exchange in Bangladesh was established in May 1981. At the end of the fiscal year 1999-2000, the total line capacity of the telex exchanges was 8,770 and the number of subscribers was 1,602 while at the end of the fiscal year 2000-2001 the total line capacity of the telex exchanges was 2,000 and the number of subscribers was 1,450. Introduction of FAX and other modern systems has rendered the growth of telex service declining.

2.5 GENTEX and Bureau Fax Service

GENTEX service was introduced in 1989 and later on Bureau fax service was introduced. The number of offices providing GENTEX services are 135. Through this service the telegraph offices are inter linked.

2.6 Nation Wide Dialing (NWD) Services.

In Bangladesh Nation-wide long distance telephone dialing system was first introduced in 1983 employing NEAX 61E version of NEC exchange to link all the major cities of the country. Before hand there were Subscribers Trunk Dialing (STD) services based on Analog EMD toll switching system to link only a few cities of the country. By June, 2001 105 stations including all 64 district headquarters and 41 upazillas were brought under direct dialing system. Total 22,770 NWD circuits were installed by June, 2001. Details about the circuits are given in Table -5.

Table -5

Capacity & Working Circuits in the Trunk Automatic Exchanges (TAX's) as on June 30, 2001.

Name of TAX	Capacity			Working Circuits			Total	
	NEC	Alcatel	ZTE	NEC	Alcatel	ZTE	Capacity	Working Circuits
Dhaka	10,861	6,000	-	6,799	5,200	-	16,861	11,999
Chittagong	1,603	3,000	-	808	3,000	-	4,603	3,808
Khulna	2,509	3,120	-	1,243	1,898	-	5,629	3,141
Bogra	-	3,840	-	-	1,632	-	3,840	1,632
Barisal	-	-	2400	-	-	630	2,400	630
Kushtia	-	-	840	-	-	840	840	840
Comilla	-	-	720	-	-	720	720	720
GRAND TOTAL	14,973	15,960	3,960	8,850	11,730	2,190	34,893	22,770

2.7 Manual National Trunk Service :

Direct Manual Trunk Circuits working with Dhaka are shown in the Table-6.

Table - 6

Direct Trunk Circuits Working with Dhaka

Region	Circuits In 30 June, 2000	Circuits in 30 June, 2001
Dhaka	24	18
Chittagong	24	13
Khulna	24	11
Rajshahi	21	15
Total	93	57

2.8 Operators Trunk Dialing (OTD) Service:-

This service has been introduced recently in all the upazillas to get access to the upazillas by direct dialing to the OTD numbers connected in thanas where there is no automatic telephone exchange. In this system one or two telephone numbers of district automatic telephone exchange are extended up to thana level through UHF radio links. The telephone operators of the manual telephone exchanges can, through these numbers, connect subscribers of the thana with any subscribers of other auto exchanges of the country by dialing respective NWD codes.

2.9 Transmission System in Bangladesh :

Bangladesh is a riverine country, as the country`s long distance transmission systems are mainly composed of microwave, UHF and VHF radio links. The use of optical fibre is still limited within some city areas for interconnecting local exchange and Remote Switching Units (RSU) in Multi Exchange Networks and also for interconnections between switching exchanges and microwave stations. BTTB major microwave radio links, as listed in Table-7 are shown in Figure.1

Table -7

Major Backbone Microwave Links as on 30th June, 2001

Link	Type	Radio Channel Capacity	Make
Dhaka- Chittagong	Analog	1800	NEC
Dhaka -Faridpur- Magura- Kushtia-Khulna	Digital	140 Mb/s	Fujitsu
Dhaka-Manikgonj-Faridpur-Kushtia-Khulna	Digital	STM-1	Nortel
Dhaka - Syihet	Digital	140 Mb/s	Alcatel
Dhaka -Tangail-Mymenshingh	Digital	140 Mb/s	Alcatel
Dhaka- Narayangonj- Hajigonj	Analog	1800	NEC
Dhaka - Tangail - Bogra	Digital	140 Mb/s	Alcatel
Bogra -Naogaon- Natore -Rajshahi	Analog	960	Fujitsu
Rajshahi -Natore- Chuadanga	Analog	960	Fujitsu
Bogra -Phulbari-Thakurgaon	Analog	960	Fujitsu
Bogra - Phulbari - Rangpur	Analog	960	Fujitsu
Khulna-Barisal	Digital	34 Mb/s	JRC
Chittagong - Cox'sbazar	Analog	960	ZTE
Chittagong - Cox'sbazar	Digital	34 Mb/s	JRC
Chittagong -Betbonia	Digital	140 Mb/s	Alcatel
Betbonia - Rangamati	Analog	300	ZTE
Gopalgonj - Khulna	Digital	34 Mb/s	Seimens
Barisal -Patuakhali	Digital	34 Mb/s	JRC
Barisal -Patuakhali	Digital	34 Mb/s	Harris
Barisal -Pirojpur	Digital	140 Mb/s	Tata
Barisal -Patuakhali -Khepupara	Digital	34 Mb/s	JRC
Khulna - Manglaport- Satkhira	Digtal	34 Mb/s	Haris
Tangail - Mymensingh	Digital	1920	Alcatel

All Upazilla Headquarters (the smallest administrative units) are connected with their respective district headquarters through UHF links most of which are now digital radio systems. Also some of the district headquarters are interconnected through digital UHF links.

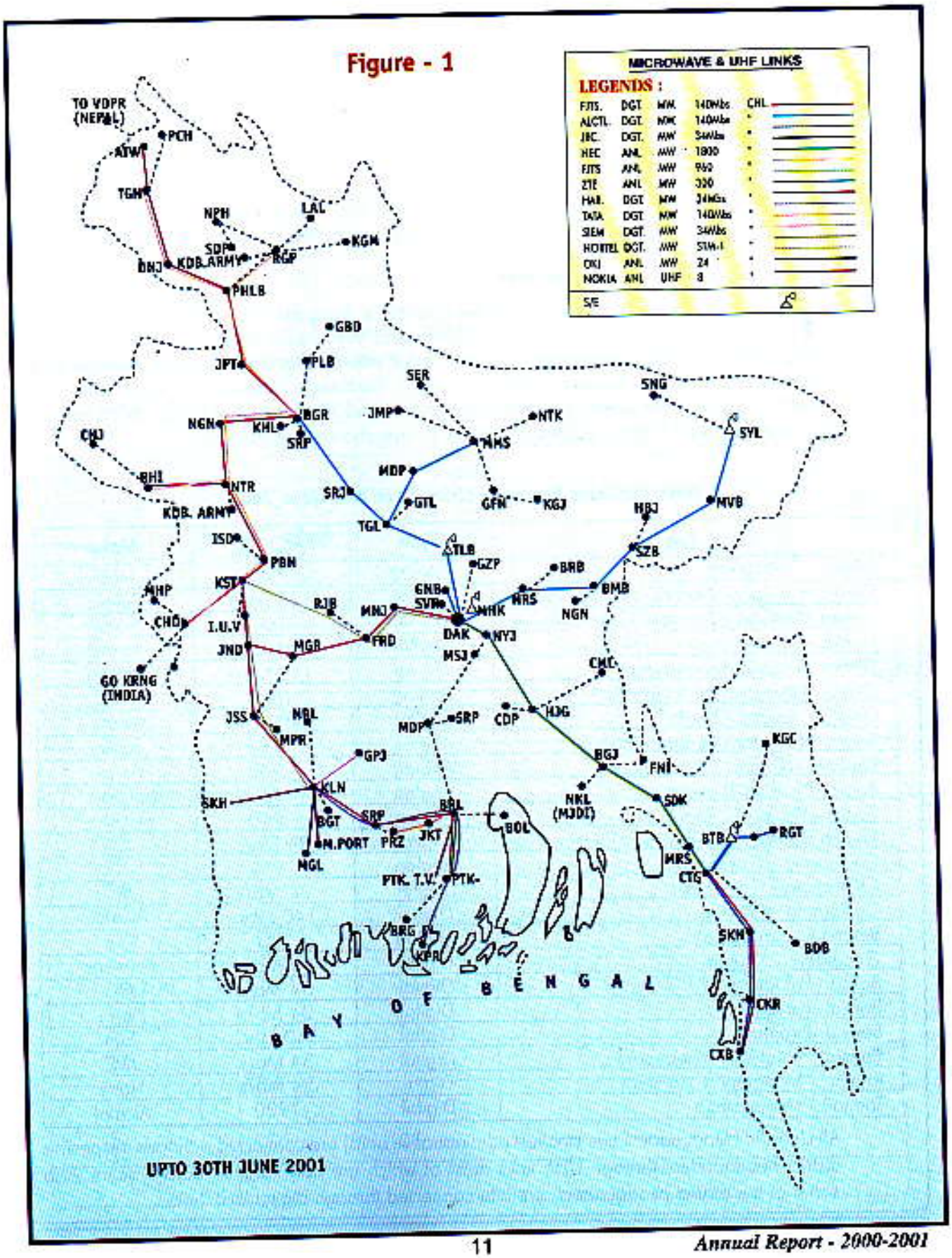


Figure - 1
MICROWAVE & UHF LINKS
LEGENDS :
FJTS. DGT. MW. 140Mbs CHL
ALCTL. DGT. MW. 140Mbs
JBC. DGT. MW. 34Mbs
NEC ANL. MW 1800
FJTS ANL MW 960
ZTE ANL MW 300
HAL. DGT. MW 34Mbs
TATA DGT. MW 140Mbs
SIEM DGT. MW 34Mbs
HOTTEL DGT. MW STM-1
OKI ANL MW 24
NOKIA ANL UHF 8
S/E
TO VDPR (NEPAL)
PCH
AIW
TGH
NPH
LAC
KGM
SDP
KDB. ARMY
RGP
BNJ
PHLB
GBD
JPT
PLB
SER
SNG
SYL
JMP
NTK
NGN
KHL
BGR
SRP
CHJ
NMS
BHI
NTR
MDP
SRJ
GTL
GFN
KGJ
HBJ
MVB
KDB. ARMY
TGL
ISD
TLB
SZB
PBN
GZP
BRB
KST
GNB
SVR
BMB
MHP
RJB
MNJ
NHK
NRS
NGN
CHO
I.U.V
DAK
NY3
JND
MGR
FRD
MSJ
CMI
GO KRNG (INDIA)
JSS
NBL
MDP
SRP
CDP
HJG
MPR
GPJ
KGC
BGJ
FNI
KLN
NKL (MJDI)
SDK
SKH
BGT
SRP
BRL
BOL
BTB
RGT
N.PORT
PRZ
JKT
MRS
MGL
PTK. T.V.
PTK
CTG
BRG
KPR
SKH
BDB
CKR
CXB
B A Y O F B E N G A L
UPTO 30TH JUNE 2001

2.10 International Telecommunication

To meet the existing & future demand of overseas traffic, BTTB endeavors continuously to increase number of international circuits with other countries. By June, 2001 BTTB, through four Satellite earth Stations in Betbunia, Talibabad, Mahakhali & Sylhet (Table-11) established 2767 international direct circuits with 33 operators of 25 countries and transit circuits with 171 countries as shown in table 8 & 9.

Table-8

Overseas Circuits Arrangement of BTTB as on 30. 06. 2001.

SL	Country	Voice Circuit					VFT/Data CCT			Telex/Telegram CCT		
		BTB E/S	TBD E/S	MHK E/S	SYL E/S	M/W	VFT	Data	Total	Tlx	TG	TGP
1.	Australia	-	-	58	-	-	-	1	59	-	-	-
2.	Bahrain	8	-	-	-	-	-	-	8	-	-	-
3.	Canada	-	-	22	-	-	-	8	30	-	-	-
4.	China	-	-	8	-	-	-	-	8	-	-	-
5.	France	-	-	28	-	-	-	1	29	7	-	-
6.	Germany	-	-	30	-	-	-	-	30	9	-	-
7.	Hongkong	60	-	28	-	-	1	1	90	19	1	-
8.	India (Cal)	-	-	30	-	59	1	-	90	16	2	2
	India (Delhi)	-	-	28	-	-	-	2	30	3	-	-
9.	Indonesia	-	-	8	-	-	-	-	8	-	-	-
10.	Italy	-	-	29	-	-	1	-	30	6	1	-
11.	Japan(KDD)	-	-	169	-	-	1	-	170	9	1	-
	Japan(ITJ)	48	-	-	-	-	-	-	48	-	-	-
12.	Korea(KT)	-	-	60	-	-	-	-	60	5	-	-
	Korea(Dacom)	-	-	30	-	-	-	-	30	-	-	-
13.	Malaysia	-	-	58	-	-	-	-	58	-	-	-
14.	Nepal	-	-	-	-	12	-	-	12	-	-	-
15.	Netherland	-	-	14	-	-	-	-	14	-	-	-
16.	Oman	16	-	-	-	-	-	-	16	-	-	-
17	Pakistan (KR)	15	-	-	-	-	1	-	16	7	1	-
18.	Qatar	15	-	-	-	-	-	-	15	-	-	-
19.	Singapore	90	-	60	-	-	1	3	154	16	1	-
	StarHub (Singapore)	-	-	30	-	-	-	-	30	-	-	-
20.	S. Arabia	150	-	300	-	-	-	-	450	-	-	-
21.	Srilanka	-	-	8	-	-	-	-	8	3	-	-
22.	Thailand	-	-	15	-	-	1	-	16	6	-	1
23.	UAE	-	-	238	-	-	1	1	240	10	1	1
24.	UK (Concert)	-	180	120	120	-	2	-	422	27	1	1
	UK (C and W)	-	-	-	-	-	-	30	30	-	-	-
	IPLC, UK (Concert)	-	-	-	-	-	-	5	05	-	-	-
25.	USA (MCI)	-	-	240	-	-	-	-	240	-	-	-
	USA (Concert, AT&T)	-	180	-	-	-	1	-	181	30	2	-
	USA (Sprint)	-	-	110	-	-	-	-	110	-	-	-
	USA (Startec)	-	-	30	-	-	-	-	30	-	-	-
	Total	402	360	1751	120	71	11	52	2767	171	11	5

TLX= Telex Service, TG= Telegraph Service, TGP= Private leased Telegraph.

Table-9

Growth of International Voice Circuits

Year	Circuit
June, 1996	1,267
June, 1997	1,609
June, 1998	1841
June, 1999	2081
June, 2000	2,302
June, 2001	2,767

Fig-2

Growth of International Circuits

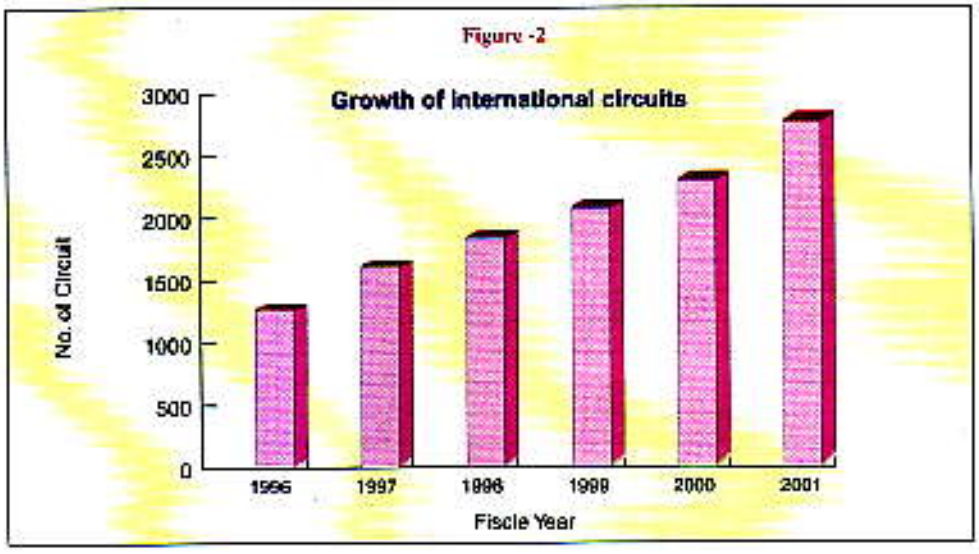


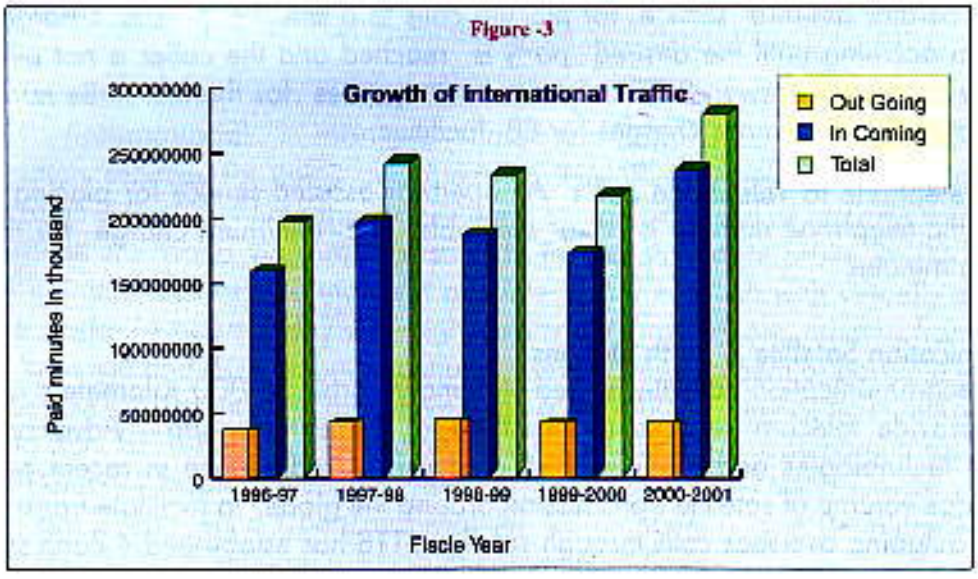
Table-10

Paid minutes of International circuits

Year	1996-97	1997-98	1998-99	1999-2000	2000-2001
Outgoing	3,77,39,477	4,44,24,515	4,51,12,586	4,39,17,940	4,35,59,021
Incoming	15,94,95,408	19,74,23,078	18,72,84,651	17,32,92,576	23,59,00,284
Total	19,72,34,885	24,18,47,593	23,23,97,237	21,72,10,516	27,92,59,305

Fig-3

Growth of International Circuits



i) International Leased Circuits.

BTTB's International Leased Circuits directly link customer to a designated overseas location around the globe. A fixed monthly rate makes this service particularly cost effective for customers.

ii) International Telex

International telex offers corporate customers convenient alphabet and symbol based telex services, including Hold-and Send, Multiple destinations. Charges are calculated in one-minute unit.

International Telephone call facilities of BTTB.

1) International Direct dialing (IDD)

Subscribers may call overseas countries directly without operator assistance. Rates are calculated in 30 seconds units. BTTB also offers economy rate (25% discount) from 14.00 GMT to 02.00 GMT and Weekly and other Government Holidays besides its normal rate.

Normal call charge	Discount call charge
From 02.00 GMT to 14.00 GMT	14.00 GMT to 02.00 GMT and Weekly and Government Holidays.

* This rate is valid from 1st July, 2001

2) International Operator Assisted Call.

i) Person to Person Call :
An operator assisted service, for placing calls to a specific person. Charges do not begin accruing until the desired party is reached and the caller is not billed if the party does not answer. BTTB's standard rate applies for the first three minutes and additional two minutes charges for P.P. facilities.

ii) Telephone to Telephone call : An operator assisted service for placing call to a specific telephone number is also available. The minimum charge for this call is three minutes .

Telecommunication Satellite & Earth Stations:

A single telecommunication satellite in geo-stationary orbit 36,000 Kilometers above the earth can provide telecom services to one-third of the entire world . Advanced digital transmission technologies and more sophisticated use of radio wave in recent years have facilitated large volume of satellite transmission around the globe. To facilitate transmission of incoming & outgoing overseas calls through satellite BTTB has established 4 Earth stations till to date .The first earth station was installed at Betbunia near to Chittagong in 1975. 407 (Voice 402+VFT 2 + Data 3) International circuits of 8 countries are working through this earth station. The second earth station was installed in 1982 at Talibabad. 393 (Voice 360 + VFT 3 + Data 30) international circuits of 2 countries are working through this earth station. Later the third earth station consists of largest International circuit facilities was installed in 1994 at Mohakhali. 1775 (Voice 1751 + VFT 5 + Data 19) international circuits of 21 countries are working through this earth station. The fourth earth station has been established at Sylhet in 1995 by British Telecom assistance to facilitate only BT-Sylhet traffic. 120 International circuits are working through this earth station. Moreover 71 Terrestrial International circuits of 2 countries are working via Microwave. These earth stations operating with INTELSAT satellites are located in the Indian Ocean Region .

Table-11.

Name of E/S	Standard	Carrier	Working with INTELSAT
Betbunia	A	IDR	60° E IOR
Talibabad	B	IDR	60° E IOR
Mohakhali	A	IDR	64° E IOR
Sylhet	F3	IDR	62° E IOR

International Switching Centres:

International switching centres are mainly responsible for immediate selecting and connecting the appropriate circuit for incoming calls and sending the necessary information to the

receiving country's switch to complete the calls. At present BTTB has three international switching centres (ISC) of which two are located at Moghbazar & one at Mohakhali . ISCs of Moghhazar is of type NEAX - 61K and NEAX - 61E while ISC at Mohakhali is NEAX-61E.

International maritime Satellite Communication:

INTELSAT satellites links, with fixed Earth Stations for overseas communication while INMARSAT (International maritime Satellite Communication) provides mobile communication services for ships and aircrafts. INMARSAT service is the mobile satellite communication system that links the mobile earth station on vessel or aircrafts with land earth stations around the world via inmarsat satellite in geo-stationery orbits 36,000 kilometers above the equator. This service makes it possible to get in touch with virtually any location around the world 24 hours a day with high quality communications ranging from telephone & Telex to facsimile and data communications. Recent development of portable terminal has made it possible for customers to take advantage of INMARSAT service from remote locations also. Till to date BTTB had five INMARSAT-A Terminal which is operating through one LES (Land Earth Station) located in Jeddah. Besides this according to IMN number allocated by BTTB there are 2 numbers B type (Land Mobile), 23 numbers C type (Maritime Mobile) and 5 numbers Mini-M type Terminal working in commercial basis.

International VSAT service :

It was decided in a meeting held on 28.02.2000 with the Honorable Finance Minster in the Chair that V-Sat will no longer be under BTTB's control. From then any interested Institution can get ISP license applying directly to MOPT in a prescribed form with a pay order equivalent to US$ 3,500 (three thousand five hundred). The licensee can get V-Sat connection of any bandwidth from any V-Sat operator.

Internet facility :

BTTB is now providing Internet access services. The services include dial in access service, leased access services for enterprises, access for local ISPs, mail, Web hosting and .BD name registration and .DNS services. It has now a backbone connectivity of 512Kbps with Teleglobe Canada and another 2Mbs with C&W, UK.

International Correspondence :

International telecommunication also depends on countries sharing their information with the rest of the world. Close working relationships among different international organisation and a spirit of international co-operation are essential in this regard. By strengthening relationship with various international organisations BTTB aims to contribute to the advancement of international telecommunication in Bangladesh. In this context BTTB maintains relation with International & regional groups likewise International Telecommunication Union (ITU), Intelsat, INMARSAT, APT etc. for sharing the service facilities and responding to the request of mutual interest.

3.0 PLANNING AND DEVELOPMENT OF TELECOMMUNICATION SERVICES.

3.1 Growth of Telephone in Bangladesh

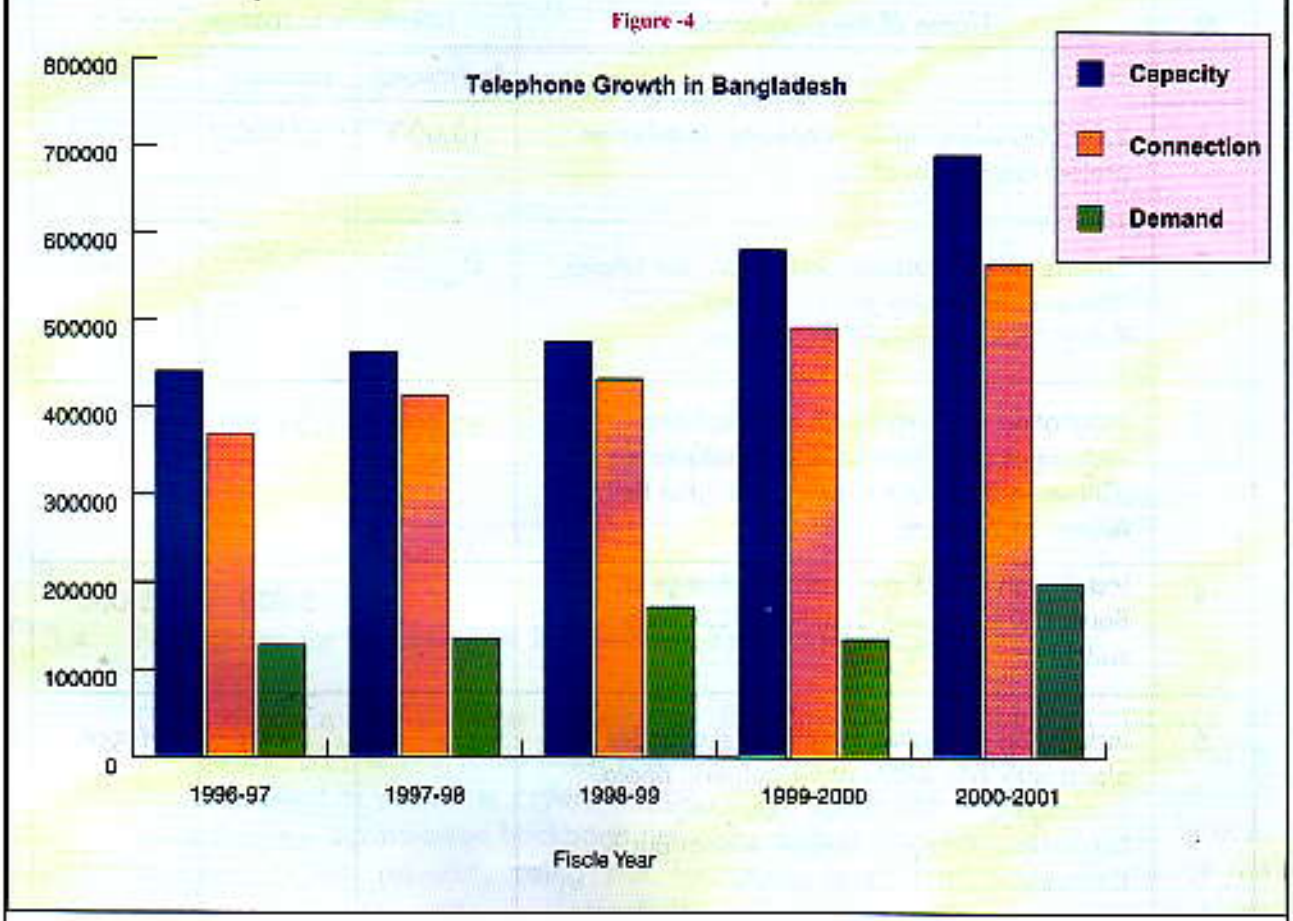
The growth of telephone exchange capacity in Bangladesh in the last five years was on average only 50,000 lines per year. The recorded pending demand of telephone has been increasing at a faster rate than the telephone expansion. Table-12 & Fig.-4 show the past trend of telephone growth in Bangladesh from 1996-97 to 2000-2001 financial years.

Table - 12
Telephone Growth in Bangladesh.

Year	Type of Exchange	Number of Exchange	Exchange Capacity	Telephone Connection	Pending Demand
1996-97	Manual	476	39,812	32,714	14,943
	Auto(Analog)	114	1,40,920	1,32,711	65,554
	Auto(Digital)	35	2,59,759	2,02,592	47,041
	Total	625	4,40,491	3,68,017	1,27,438
1997-98	Manual	479	42,867	34,607	15,336
	Auto(Analog)	112	135,040	125,627	66,078
	Auto(Digital)	37	284,666	252,337	54,006
	Total	628	462,573	412,607	135,420
1998-99	Manual	479	44,301	36,341	17,394
	Auto(Analog)	108	141,520	129,796	75,842
	Auto(Digital)	44	288,501	266,831	78,860
	Total	631	474,322	432,968	172,096
1999-2000	Manual	476	45,845	39,045	21,769
	Auto(Analog)	102	139,420	115,606	18,220
	Auto(Digital)	65	3,94,529	336,652	95,125
	Total	643	579,794	491,303	135,114
2000-2001	Manual	440	41,815	34,672	18,903
	Auto(Analog)	91	1,07,720	70,690	18,307
	Auto(Digital)	131	5,39,825	4,59,518	1,61,900
	Total	662	6,88,920	5,64,880	1,99,110

Figure - 4

Telephone Growth in Bangladesh



3.2 Programme for installation of digital telephone lines under BTTB

Bangladesh Telegraph and Telephone Board had a target to raise its telephone capacity to at least 800,000 by the year 2001. Because of resource and other constraints BTTB could not implement projects to fullfil such target. But however, BTTB has taken some programmes in phases to install new digital telephone exchanges both for expansion of exchange capacity and to replace some of the old manual / analog exchanges. Some programmes which are under implementation by the BTTB upto June, 2001 are shown in Table -13.

Table -13

Programme for Installation of Digital Telephone Exchanges by BTTB in 2000-2001

SL	Name of the programme	Telephone Exchange Capacity		
		Replacement	Expansion	Total
1	2,00,000 Lines digital telephone installation project (expansion phase)	13,000	37,000	50,000
2	Expansion with surplus fund of Greater Dhaka (Phase-II) telephone project (Japan OECF Fund). Ericssion & NEC exchanges.	20,000	39,000	59,000
3	Installation and expansion of Telephone exchanges at different district headquarters (Chineese Supplier's Credit, Shanghai Bell, Alcatel S12 switch).	60,000	1,56,000	2,16,000
4	Installation of TAX cum Local exchange at Barisal, Kushtia and Comilla (ZTE, China switch)	-	5,000	5,000
5	Installation of Digital Telephone exchanges along with WLL &RSU at Gopalganj, Bhola, Sunamganj, Shariatpur, Habigonj, Lakshmipur, Gazipur, Tangail, Madaripur & Kishoreganj (GDT, China switch).	-	1,550	1,550
6	Installation of digital exchanges to replace manual / auto exchanges at 92 up-zillas (ZTE, China switch).	10,000	18,500	28,500
	Total	**1,03,000**	**2,39,050**	**3,42,050**

3.3 Expansion of Trunk Automatic Exchange (TAX).

BTTB has taken steps for installation and expansion of Trunk Automatic Exchanges (TAX) at different locations of Bangladesh to meet the additional need of inter city NWD traffic. A list of new TAX's being installed in Table -14.

Table -14.

Installation of New Trunk Automatic Exchanges (TAX).

SL	Name of Project	Location	Circuit Capacity
1	Greater Dhaka (Phase- II) Telephone Project (Japan, OECF Fund / Ericsson,AXE-10switch)	Central exchange, Dhaka	7,580
2	Expansion and replacement of TAX at Bogra (Alcatel, E-10 switch)	Bogra	3,840
3	Installation of exchanges at different district headquarters (Chineese suppliers Credit, Shanghai Bell, China switch/ Alcatel S12 model).	Mymensingh Rangamati Noakhali Faridpur Jessore Dinajpur Rangpur Pabna	5,840 1,430 2,480 2,930 4,090 1,980 4,310 1,600
	Sub Total		24,660
	Grand Total		36,080

3.4 Programme for Expansion of Transmission Systems in Bangladesh.

Long distance transmission systems of Bangladesh are mainly composed of microwave, UHF & VHF radio links. The optical fibre links are used in cities only. BTTB has intensified its project in order to improve the quality and quantity of the national long distance transmission backbone network. Major backbone transmission links in Bangladesh are presently using star formation network structure. Some of the transmission routes under implementation will introduce mesh formation in some areas of backbone transmission networks, which will enhance better system reliability within the respective mesh interlink. According to the BTTB's projects under implementation, upto district level all analog transmissionlinks will be replaced by digital links, some digital PDH (Plesiochronous digital Hierarchy) multiplexing will be replaced by improved version digital SDH (Synchronous Digital Hierarchy) multiplexing arrangement and Optical fibre transmission links will be installed in few routes including two major routes viz, Dhaka-Chittagong & Dhaka-Bogra.

Introduction of optical fibre transmission routes in the country will open up new horizon for implementation of multi media convergent telecommunications transmission system to function in the future multi operator environment. A list of major transmission routes/ links under implementation through different projects are given bellow :

Table - 15

Programs under progress for Installation of new Major Digital Transmission Links by BTTB in 2000-2001.

Sl. No.	Name of project	Name of Route/ Links	Means of system	Type of system	Bandwidth of route/ Link
1	2,00,000 lines digital telephone installation in Bangladesh.	Dhaka - Bogra routes (via Kaliakoir, Mymensingh, Tangail & Sirajgonj)	OFC (Optical fibre cable)	SDH	155 Mbps
2	"	Dhaka - Khulna (via Manikgonj, Faridpur, Magura & Jessore) and Magura-Jhenaidah - Khulna.	MW (Micro wave)	SDH	155 Mbps
3	"	Bogra - Rajshahi (via Naogaon & Natore) and Natore - Pabna-Kushtia.	MW	PDH	34 Mbps
4	"	Rajshahi - Nawabganj	MW	PDH	34 Mbps
5.	"	Bogra - Gaibandha (via gobindaganj)	MW	PDH	34 Mbps
6	"	Mymensingh-Kishoreganj (via Gaffargaon)	MW	PDH	34 Mbps
7	"	Moulavibazar - Habiganj	MW	PDH	34 Mbps
8	"	Jessore - Benapole	MW	PDH	34 Mbps
9	"	Khulna -Gopalganj	MW	PDH	34 Mbps
10	"	Khulna - Narail	MW	PDH	34 Mbps
11	"	Mymensingh - Jamalpur	MW	PDH	34 Mbps
12	"	Sylhet - Sunamganj	MW	PDH	34 Mbps
13	"	Jessore - Noapara	MW	PDH	34 Mbps
14	"	Jessore - Sharsha (via Jhikargachha)	MW	PDH	34 Mbps
15	"	Chuadanga-Meherpur	MW	PDH	34 Mbps

16	Dhaka-Chittagong optical fibre transmission link project	Moghbazar - Comilla	OFC	SDH	2.5 Gbps
17	"	Comilla - Feni	OFC	SDH	2.5 Gbps
18	"	Feni - Chittagong	OFC	SDH	2.5 Gbps
19	"	Gulshan - Tongi	OFC	SDH	155 Mbps
20	"	Tongi - Gazipur	OFC (using old	SDH	155 Mbps
21	"	Comilla-B. Baria	OFC)	SDH	155 Mbps
22	"	Feni - Chaumuhini	OFC	SDH	622 Mbps
23	"	Chaumohini - Maizdi	OFC	SDH	622 Mbps
24	"	Maizdi - Laxmipur	OFC	SDH	155 Mbps
25	"	Moghbazar - Munshiganj	OFC	PDH	34 Mbps
26	"	Moghbazar - Manikganj	MW	PDH	34 Mbps
27	"	Comilla - Hajiganj	MW	PDH	34 Mbps
28	"	Hajiganj - Chandpur	MW	PDH	34 Mbps
29	58 district digital telephone project (216 kl project)	Chuadanga - Meherpur	MW	SDH	155 Mbps
30	"	Meherpur - Kushtia	OFC	SDH	155 Mbps
31	"	Dinajpur - Rangpur	OFC	SDH	155 Mbps
32	"	Dinajpur -Thakurgaon	OFC	SDH	155 Mbps
33	"	Rangpur - Lalmonirhat	OFC	SDH	155 Mbps
34	"	Rangpur - Saidpur	OFC	SDH	155 Mbps
35	"	Saidpur - Nilphamari	OFC	SDH	155 Mbps
36	"	Rangpur - Kurigram	OFC	SDH	155 Mbps
37	"	Rangpur - Palashbari	OFC	SDH	155 Mbps
38	"	Bogra - Palashbari	OFC	SDH	155 Mbps
39	"	Sirajganj - Shahjadpur	OFC	SDH	155 Mbps
40	"	Shahjadpur - Pabna	OFC	SDH	155 Mbps
41	"	Mymensingh - Sherpur	OFC	SDH	155 Mbps

42	"	Mymensingh - Netrokona	OFC	SDH	155 Mbps
43	"	Satkhira - Khulna	OFC	SDH	155 Mbps
44	"	Rangamati - Mahalchhari	OFC	SDH	155 Mbps
45	"	Khagrachhari-Mahalchhari	OFC	SDH	155 Mbps
46	"	Rangamati - Betbunia	OFC	SDH	155 Mbps
47	"	Thakurgaon - Panchagarh	OFC	SDH	155 Mbps
48	"	Bogra - Jaypurhat	MW	SDH	155 Mbps
49	"	Rajbari - Faridpur	MW	SDH	155 Mbps
50	"	Faridpur - Sadarpur	MW	SDH	155 Mbps
51	"	Sadarpur - Madaripur	MW	SDH	155 Mbps
52	"	Madaripur - Shariatpur	MW	SDH	155 Mbps
53	"	Madaripur - Gopalganj	MW	SDH	155 Mbps
54	"	Jessore - Narail	MW	SDH	155 Mbps
55	"	Khulna - Bagerhat	MW	SDH	155 Mbps
56	"	Pirojpur - Jhalakathi	MW	SDH	155 Mbps
57	"	Jhalakathi - Barisal	MW	SDH	155 Mbps
58	"	Barisal - Bhola	MW	SDH	155 Mbps
59	"	Barguna - Patuakhali	MW	SDH	155 Mbps
60	"	Satkania - Bandarban	MW	SDH	155 Mbps
61	"	Chittagong - Satkania	MW	SDH	155 Mbps
62	"	Satkania - Chiringa	MW	SDH	155 Mbps
63	"	Chiringa - Cox,s bazar	MW	SDH	155 Mbps
64	"	Bagerhat - Pirojpur	MW	SDH	155 Mbps
65	"	Bhola - Lakshmipur	MW	SDH	155 Mbps

3.5 Introduction of Data Communication through PSPDN.

Bangladesh Telegraph and Telephone Board has implemented a project for installation and commissioning of a packet Switched Public Data Network (PSPDN). This PSPDN having X.25 and X.28 protocols have 8 (eight) nodes at Dhaka, Chittagong, Khulna, Rajshahi, Sylhet, Barisal, Bogra and Mymensingh. In addition to the PSPDN, BTTB has introduced Internet Services for the subscribers. BTTB is planning to enhance the facilities available in the existing DDN (Digital Data Network) analog with expansion of the DDN to some other new areas.

4. FINANCIAL STATEMENT OF BTTB.

4.1. Revenue Income for 2000-2001.

Actual revenue collection for the financial year 2000-2001 was Tk. 13,052.19 million against the budgeted revenue of Tk. 16,000.00 million. There was a shortage of Tk. 2,947.81 million from the budgeted amount. This collected revenue was 6.81% less than the collected revenue of 1999-2000 financial year. This may be mentioned that due to legal complications with the bill printing computer firm, bill for April and may, 2001 could not be issued to the subscribers within the 2000-2001 financial year. This caused shortage of revenue collection during the fiscal year 2000-2001. Inspite of that, the net surplus of financial year 2000-2001 was higher than the previous financial year.

A comparison of revenue collection, expenditure & surplus for the period from 1996-97 to 2000-2001 is shown in Table-16 and Fig.- 5.

Table-16

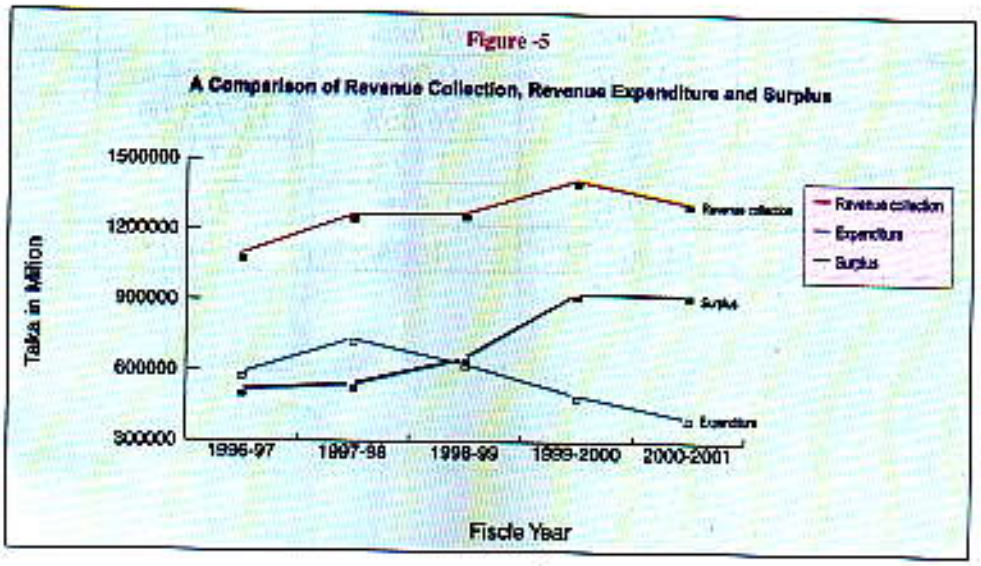
A Comparison of Revenue Collection, Revenue Expanditure and Surplus

Year	Revenue collection	Expenditure	Surplus
1996-97	10724.85	5738.10	4986.75
1997-98	12451.84	7201.71	5250.13
1998-99	12542.48	6167.84	6374.64
1999-2000	14006.76	4864.82	9141.95
2000-2001	13052.19	3904.54	9147.65

1 US Dollar = Taka 53.85.

* This amount includes repayment of Bond valued Taka 85.50 million.

Figure -5



4.2 Revenue Collection.

The statement of billed amount, revenue collection and receivable figures for the year 1999-2000 and 2000-2001 are shown in Table-17. Table -18 shows the service wise revenue collection for the year 1999-2000 and 2000-2001. Service wise distribution of actual revenue collection along with the rate of yearly increase/ decrease of such collections in percentage for the periods from 1996-97 to 2000-2001 are shown in the Table-19 and Fig.- 6.

Table -17

Revenue Collection and Revenue Receivable.

Description	Taka in Million	
	1999-2000	2000-2001
Receivable amount as on opening day of fiscal year	4,479.53	5,581.99
Bills issued during the fiscal year	15,109.23	13,075.46
Total Receivable amount during the year	19,588.76	18,657.46
Actual Receipt in the year	14,006.76	13,052.19
Receivable amount carried over to the opening day of next fiscal year.	5,581.99	5,605.27

Table-18

Service wise Distribution of Revenue Collection in 1999-2000 and 2000-2001

(Taka in Million)

Name of Service	1999-2000		2000-2001	
	Taka in Million	Percentage of Total	Taka in Million	Percentage of Total
Telegraph	12.07	0.09%	10.54	0.08%
Telephone	13,564.91	96.85%	12,733.08	97.55%
Telex	157.66	1.12%	87.19	0.67%
Others	272.12	1.94%	221.38	1.70%
TOTAL	14,006.76	100%	13052.19	100%

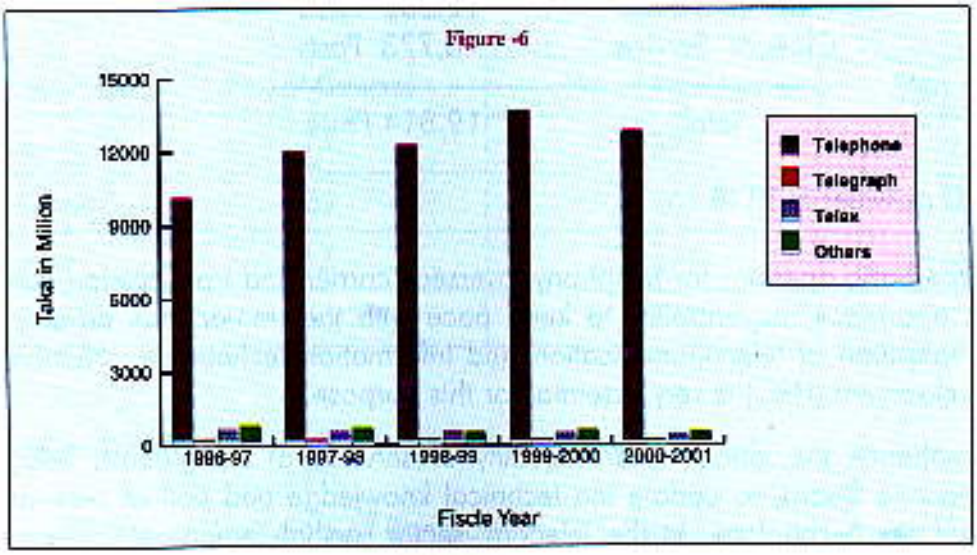
Table -19

Rate of Change of Year wise Revenue Collection Against Different Service

(Tk. in million)

Service	Item	1996-97	1997-98	1998-99	1999-2000	2000-2001
Telegraph	Revenue	17.50	15.00	12.27	12.07	10.54
	Change Rate	(-) 6.66%	(-)14.28%	(-) 18.23%	(-) 1.63%	(-) 12.68%
Telephone	Revenue	9955.40	11,874.81	12,138.30	13,564.91	12733.08
	Change Rate	26.36%	(+)19.28%	(+) 2.22%	(+) 11.75%	(-) 6.13%
Telex	Revenue	290.40	198.34	200.28	157.66	87.18
	Change Rate	34.64%	(-)31.70%	(+) 98%	(-) 21.28%	(-) 44.70%
Others	Revenue	461.50	363.69	191.64	272.12	221.38
	Change Rate	77.30%	(-)21.19%	(-) 47.31%	(-) 41.99%	(-) 18.65%
Total	Revenue	10724.80	12,451.84	12,542.48	14,006.76	13052.19
	Change Rate	(+) 16%	(+)16.10%	(+) 0.72%	(+) 11.67%	(-) 6.81%

Figure -6



4.3 Annual Development Program (ADP) for Capital Investment.

Every year capital is invested through national Annual Development Programme (ADP) of the government for the projects which creates fixed assets for BTTB. The annual Development Programme for the year 2000-2001 and the actual amount spent under this programme for ten projects are furnished in Table-20.

Table - 20

BTTB Investment in 2000-2001 through ADP on 10 (Ten) projects.

(Taka in Million)

Item	Local Currency	Foreign Exchange	Total
Allotment	3081.65	2300.00	5381.65
Expenditure	1864.48	2776.64	4641.13
Surplus	1217.17	(-) 476.64	740.52

5.0 HUMAN RESOURCES DEVELOPEMENT (HRD) & SOCIAL WELFARE ACTIVITIES.

5.1 Number of Posts in BTTB.

There are 19,814 different categories of regular posts (working position) in BTTB which are classified into following four service classes.

Class I Service	:	676 Posts
Class II Service	:	32 Posts
Class III Service	:	12,333 Posts
Class IV Service	:	6,773 Posts
Total	:	19,814 Posts

5.2 HRD activities in BTTB.

As the basic operator for telephony, overseas carrier and transmission network BTTB has enormous responsibility to keep pace with the tremendous development and globalisation of telecommunication and information technology. Human Resource Development (HRD) is very essential for this purpose.

To enhance the efficiency and quality of services of Bangladesh Telegraph and Telephone Board, to update the technical knowledge and skill of personnel and to install new technology in the Telecom. sector special emphasis is given to the in-service training activities. In service training for newly recruited engineers and refresher training of other officers are carried out in Telecom. Staff College (TSC), Gazipur and

that for the employees are usually carried out in Telecom. Training Centres (TTCs) located at Dhaka, Bogra and Khulna and in other sub-centres.

The Telecom. Staff College (TSC) at Gazipur(near Dhaka) established in 1987 with ITU & UNDP assistance has already put its marks as one of the leading institutes for telecom. training in this region. It has all the infrastructural facilities and equipment including resource personnel to establish itself as the regional training centre.

5.2.1. Courses conducted in TSC, Gazipur (2000-2001)

Sl No	Name of Course	Participants	Duration of the Course
1.	PCM	08	02.66 Man-month
2.	Computer Orientation (COT)	08	02.66 Man-month
3	ADE Batch/ 1999	20	16.00 Man-month
4	ADE Batch/ 2000	27	54.00 Man-month

5.2.2. Training in TTCs :

Training activities of Telecom. Training Centres at Dhaka, Khulna, Bogra and other Sub-centres for the year 2000-2001 are as follows :-

Category of Course	No. of Courses	No. of Participants	Man-month
Regular Course	14	391	1,122.00
Refresher Course	52	281	93.48
Special Course	17	271	166.00
Total	83	943	1,381.48

5.2.3 Foreign Training:

100 Officers and officials of Bangladesh T&T Board received foreign training in about 28 different Courses in Telecom. and relevent subjects. Courses held during 2000-2001 fiscal year in Canada, China, France, India, Srilanka, Japan,

Malaysia, Norway, Singapur **Philipines, South** Korea, Sweden and UK. The foreign training activities for the year 2000-2001 are described as follows :-

Sl. No.	Name of course	No. of Participants	Enterprising agencis	Duration
1.	Data Communication	02	CTO	12 days
2.	SDH Multiplexure	06	Netus, Canada	28 days
3.	Optical Fibre Technology	01	APT	11 days
4.	Advence Telecom. Outside Plant	01	Phlipines Govt.	26 days
5.	Training on SDH equipments	08	Netus	21 days
6.	Training on SDH	01	APT	12 days
7.	Optical Fibre Cable Transmission	03	CTO	13 days
8.	Digital Switching	10	ZTE	24 days
9.	2nd Level Digital Switching	01	Alcatel	41 days
10	SDH Redio Equipments	08	Netus	21 days
11.	Network planning and management	02	CTO	12 days
12.	Trg. on PDH redio equipments	06	Nstus, Norway	28 days
13.	Trg. on Optical Fibre Cable	03	CTO	21 days
14.	Planning & Management of International Telecom.	01	APT	13 days
15.	Satelitte communication	01	APT	12 days
16.	Spectrum management	04	CTO	12 days
17.	Trg. on Wireless Local Loop	01	APT	05 days
18.	Trg. on Internet	02	APT	05 days
19.	Trg. on Infrastructure Regular & Reform	01	IISC, Srilanka	12 days
20.	Rural Telecommunications	01	APT	12 days
21.	Trg. on Transmission Equipments	06	Alcatel	34 days
22.	Fujitsu Transmission	04	Mitsui, Japan	18 days
23.	Communication Network Infrastructure	01	Sweeden, Govt.	31 days
24.	Multimedia & Mobile communications Technology	01	APT	12 days
25.	Trg. on IEP technology	01	China, Govt.	12 days
26	Senior Management Course	01	APT	05 days
27	On the job Trg. (satelitte)	01	Intelsat	34 days
28	ZTE Switching System	05	ZTE, Chin	30 days

5.2.4 Participation in foreign factory testing/ seminar/workshop/meeting :

74 Officers of Bangladesh T&T Board participated in 36 different types of factory testing /seminar / workshop / meeting abroad during 2000-2001.

5.3 Social welfare activities in Bangladesh T&T Board.

Bangladesh Telegraph and Telephone Board with its limited resources provides different facilities to the members of its staff

5.3.1. Following sanctions made to meet-up several expenditures on welfare activities in the Bangladesh Telegraph and telephone Board in the 2000-2001 fiscal year.

Sl No	Head of Expenditures	Allocation & Actual Expenditure
1.	Sanction of benevolent fund to the employees of Bangladesh T&T Board.	Tk. 15,78,000.00
2.	Sanction of education fund for the dependents of Bangladesh T&T Board employees.	Tk. 9,18,000.00
3	Sanction of grant to about 40 educational institutes including schools, colleges, mosques, madrasahs under Bangladesh T&T Board to meetup partial need of their yearly budget.	Tk. 25,97,000.00
4	Sanction of grant to the different Clubs, associations recreation/cultural shows etc for the recreation of officers /employees of Bangladesh T&T Board	Tk. 3,25,000.00
5	Sanction of grants for central sports including a games as Volley ball, Cricket, Kabadi and some indoor games.	Tk. 48,000.00

- : End : -