Pakistan

Telex Network Expansion Project

Report Date: October 2002 **Field Survey:** Not conducted¹

1. Project Profile and Japan's ODA Loan







Multan Telex Exchange Station

1.1 Background

At the time of JBIC's project appraisal in 1987, the total capacity for telex in 11 cities in Pakistan was 5,370 lines. There were 3,903 lines subscribed and 2,027 people on the waiting list; potential subscribers were obliged to wait several years. In addition, it was recognized that the existing 1,170 telex lines, which were about 22% of total capacity, often provided poor service because of the age of the system and difficulties in procuring spare parts for maintenance. Therefore, those 1,170 telex lines needed to be upgraded. In the 6th Five Year Plan (1983-1988), the Government of Pakistan put priority on development of the country's transport and communication sector and promoted investment for the expansion of telephone and telex networks nationwide.

1.2 Objectives

To improve the quality and quantity of telex services in Pakistan by installing digital telex exchanges with a total capacity of 9,200 lines in 16 cities.

1.3 Project Scope

The project scope includes:

- (a) Procurement and installation of telex exchanges (total capacity 9,200 in 16 cities) and other equipment
- (b) Procurement of supervision, training and technical maintenance service

The target areas for the project were the 16 cities of Multan, D.I. Khan, Faisalabad, Gujranwala, Sialkot, Rawalpindi/Islamabad, Abbottabad, Muzaffarabad, Peshawar, Mardan, Sukkuar, Quetta, Hyderabad, Karachi, P.E.C.H.S.KR and Hub. In addition to the above scope, 2,600 lines were to be installed in Lahore with British grant aid. Consequently, the overall project design was to install telex exchanges with total of 11,800 lines capacity in 17 cities through Japanese and British assistance.

Field survey was not carried out for this project due to the security reason. Therefore, this ex-post evaluation was done based on the information confirmed through questionnaire.

1.4 Borrower / Executing Agency

The President of the Islamic Republic of Pakistan / Pakistan Telecommunication Company Limited (PTCL) (former Pakistan Telegraph and Telephone Department, Ministry of Communication)

1.5 Outline of Loan Agreement

Loan Amount	1,900 million yen
Loan Disbursed Amount	1,351 million yen
Exchange of Notes	July 1987
Loan Agreement	September 1987
Teams and Conditions	
Interest Rate	2.75 %
Repayment Period (Grace Period)	30 years (10 years)
Procurement	Partially Untied
Final Disbursement Date	September 1992

2. Results and Evaluation

2.1 Relevance

The project provided for telex exchanges with a total capacity of 5,430 lines in 11 cities. However, since project completion, advanced communication technologies such as internet have replaced conventional technologies in the field of telecommunications. In 2000, the total capacity of the existing telex exchanges in 11 cities was 6,008 lines, vis-à-vis 2,180 telex subscriber lines and the average utilization factor of project facilities in that year was only 36.3%. At present, the priority for provision of telex service in Pakistan is low. Customers have had little interest in telex due to introduction of internet service and spread of fax machines.

However, at the time of project appraisal, in 1987, telex was one of the major international communication tools in Pakistan, being cheaper than international telephone service, and the demand for telex service was expected to expand as international economic activities in Pakistan increased. In fact, from 1993 to 1996, the project facilities were better utilized than they were after 1997. For instance, the average utilization factor of the project facilities was 75.9% in 1996, reaching 93.6% at the Karachi Telex Exchange.

Considering the situation in 1987, when few could predict the rapid development of Internet services in Pakistan, it can be said that the project had relevance and that the project facilities were utilized to a reasonable extent by customers until 1996. Unfortunately, the need for telex service became lower and its role became less important as advanced communication technologies emerged. Nevertheless, the project's overall goal, to provide a trunk communication network in the country, is still relevant.

2.2 Efficiency

2.2.1 Project Scope

There was a modification in the total number of telex lines installed: Total telex line capacity in the original plan was 9,200 in 16 cities, but actual installed capacity was 5,430 in 11 cities. When demand for telex connections changed in different locations with the introduction of internet service and spread of fax machines, telex exchanges were reallocated and the overall exchange capacity was reduced.

2.2.2 Implementation Schedule

The original project implementation schedule was for the 37 months from Aug. 1987 (Loan Agreement) to Aug. 1990 (final acceptance), while the actual schedule spanned 72 months, from Sep. 1987 to Aug. 1993.

The manufacturing of equipment was started after a delay of 36 months and thereby the project lasted 35 months longer than planned. The main reasons for it's the overall delay were: (i) delays in the tender negotiation process; and (ii) delays in manufacturing, shipping, and installing equipment.

2.2.3 Project Cost

The estimated total project cost was 2,691 million Yen (incl. ODA loan amount: 1,900 million Yen), and the actual total project cost was 1,351 million Yen (incl. disbursed amount: 1,351 million Yen). In the original plan, the local currency portion of 60.8 million Rupees, equivalent to 791 million Yen, was to be covered by the Government of Pakistan, but in fact 100% of the total project cost was covered by ODA loan. The cost underrun seems to be a result of the modification of the project scope.

2.3 Effectiveness

(1) Utilization of the project facilities

Communication innovation such as internet and so on since 1997 could not be foreseen at the time of appraisal. In addition, project life cycle got even shorter because of the delay of implementation schedule shown in 2.2.2.

According to data provided by PTCL, although the existing capacity of 6,008 lines was maintained, the number of telex subscribers dropped after 1997 and the utilization factor decreased accordingly. As shown in Tables 1, 2 and 3 below, the overall utilization of the project facilities peaked in 1996, when the average utilization factor was 75.9%. But even in 1996, the utilization factor for 7 out of 11 exchanges was below 50%. The downward trend after 1996 is thought to be due to the emergence of alternative international communication tools such as the facsimile and the Internet, as explained earlier. As indicated in Table 4, there is no longer a waiting list for main telex lines. And PTCL has no plans for further expansion of telex facilities. Telex density in the project area (no. of telex lines/100 inhabitants) has declined (Table 5).

The project objective was satisfied to some extent for a short period after project completion, but the need for the project seems weak at present. The project life cycle was shorter than anticipated at appraisal.

Table 1: Capacity of Telex Exchange

(Unit: line)

	Appraisal							Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	(1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	(1993)	(1994)	(1995)	(1996)	(1997)	(1998)	(1999)	(2000)
1. Multan	90	90	90	90	90	90	300	300	300	300	180	180	180	180	180
2. Faisalabad	90	n.a	n.a	n.a	450	450	450	450	450	450	450	450	450	450	450
3. Gujranwala	50	90	90	90	150	150	200	200	200	200	200	200	200	200	200
4. Sailkot	90	200	300	300	300	300	300	300	300	300	300	300	300	300	300
5. Peshawar	90	200	200	200	200	200	200	200	300	300	300	300	300	300	300
6. Sukkuar	30	60	60	60	60	60	150	150	150	150	150	150	150	150	150
7. Quetta	40	80	80	80	80	80	200	200	200	200	200	200	200	200	200
8. Hyderabad	90	90	90	90	90	90	250	250	250	250	250	250	250	250	250
9. Karachi	3,200	3,200	3,200	3,200	3,200	3,200	6,840	6,840	6,840	3,888	3,888	3,888	3,888	3,888	3,888
10. P.E.C.H.S. KR	0	0	0	0	0	0	n.a.								
11. Hub	0	0	0	0	0	0	90	90	90	90	90	90	90	90	90
Total (1-11)	3,770	4,010	4,110	4,110	4,620	4,620	8,980	8,980	9,080	6,128	6,008	6,008	6,008	6,008	6,008

Source: PTCL

Table 2: Number of Telex Subscriber Lines

(Unit: line)

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	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	76	0	0	0	0	0	132	133	133	107	112	110	102	103	82
2. Faisalabad	85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	266	264	242	211	206	162	130	103
3. Gujranwala	42	63	71	72	79	86	84	92	89	94	89	68	60	43	44
4. Sailkot	55	191	242	262	279	269	240	236	180	114	95	89	81	65	59
5. Peshawar	82	128	148	154	165	161	166	180	181	190	187	152	141	127	120
6. Sukkuar	23	24	24	24	24	24	24	23	23	22	22	22	22	21	19
7. Quetta	40	73	74	75	76	76	80	81	80	97	99	99	100	102	103
8. Hyderabad	72	77	82	82	79	82	73	69	71	102	96	93	88	84	76
9. Karachi	2,375	n.a.	n.a.	n.a.	n.a.	n.a.	2,998	3,028	3,414	3,526	3,640	2,906	2,302	1,885	1,566
10. P.E.C.H.S. KR	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11. Hub	0	0	0	0	0	0	90	90	11	11	11	11	10	9	8
Total (1-11)	2,850	556	641	669	702	698	3,887	4,198	4,446	4,505	4,562	3,756	3,068	2,569	2,180

Source: PT

Table 3: Utilization Factor

(Unit: %)

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	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	84.4	0	0	0	0	0	44.0	44.0	44.3	35.7	62.2	61.1	56.7	57.2	45.6
2. Faisalabad	94.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	59.1	58.7	53.8	46.9	45.8	36.0	28.9	22.9
3. Gujranwala	84.0	70.0	78.9	80.0	52.7	57.3	42.0	46.0	44.5	47.0	44.5	34.0	30.0	21.5	22.0
4. Sailkot	61.1	95.5	80.7	87.3	93.0	89.7	80.0	78.8	60.0	38.0	31.7	29.7	27.0	21.7	19.7
5. Peshawar	91.1	64.0	74.0	77.0	82.5	80.5	83.0	90.0	60.3	63.3	62.3	50.7	47.0	42.3	40.0
6. Sukkuar	76.7	40.0	40.0	40.0	40.0	40.0	16.0	15.3	15.3	14.7	14.7	14.7	14.7	14.0	12.7
7. Quetta	100.0	91.3	92.5	93.8	95.0	95.0	40.0	40.5	40.0	48.5	49.5	49.5	50.0	51.0	51.5
8. Hyderabad	80.0	85.6	91.1	91.1	87.8	91.1	29.2	27.6	28.4	40.8	38.4	37.7	35.2	33.6	30.4
9. Karachi	74.2	n.a.	n.a.	n.a.	n.a.	n.a.	43.8	44.3	49.9	90.7	93.6	74.7	59.2	48.5	40.3
10. P.E.C.H.S. KR	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.						
11. Hub	0	0	0	0	0	0	100	100	12.2	12.2	12.2	12.2	11.1	10.0	8.9
Total (1-11)	75.6	n.a.	n.a.	n.a.	n.a.	n.a.	43.3	46.7	49.0	73.5	75.9	62.5	51.1	42.8	36.3

Source: PTCL

Note: Utilization Factor = Number of Telex Subscribed Lines / Telex Exchange Installed Capacity

Table 4: Waiting List for Main Telex Line

(Unit: line)

	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Faisalabad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Gujranwala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Sailkot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Peshawar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Sukkuar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7. Quetta	2	2	1	1	0	0	0	0	0	0	1	2	2	1	0
8. Hyderabad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Karachi	1,040	1,506	1,934	2,473	2,501	2,672	1,470	n.a.	n.a.	n.a.	45	30	15	12	6
10. P.E.C.H.S. KR	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11. Hub	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: PTCL

Table 5: Telex Density

(Unit: Telex lines/100 inhabitants)

												(103/100 111	
	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.0259	0.0253	0.0248	0.0242	0.01425	0.01396	0.01369	0.01342	0.01316
2. Faisalabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3. Gujranwala	0.00140	0.00196	0.00215	0.00212	0.00226	0.00240	0.00229	0.00245	0.00231	0.00239	0.00221	0.00165	0.00142	0.00100	0.00100
4. Sailkot	0.00462	0.00607	0.00752	0.00796	0.00830	0.00783	0.00684	0.00659	0.00507	0.00306	0.00250	0.00230	0.00205	0.00162	0.00144
5. Peshawar	0.0015	0.0016	0.0015	0.0015	0.0015	0.0015	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
6. Sukkuar	0.00088	0.00076	0.00068	0.00062	0.00055	0.00050	0.00045	0.00040	0.00036	0.00030	0.00026	0.00023	0.00021	0.00018	0.00016
7. Quetta	0.01	0.01	0.01	0.01	0.01	0.008	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
8. Hyderabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9. Karachi	0.040	0.040	0.039	0.039	0.039	0.040	0.041	0.042	0.045	0.043	0.037	0.026	0.021	0.016	0.015
10. P.E.C.H.S. KR	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11. Hub	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Source: PTCL

(2) Other operational indicators

Although many data are missing, the collection ratio of telex fees in Gujranwala, Sailkot and Peshawar are comparatively high (Table 6). The situation in other project areas is unknown.

Table 6: Collection Ratio of Telex Charge

(Unit: %)

	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	-		-	-	-	-	-	n.a.	56	12	7	18	6	10	10
2. Faisalabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3. Gujranwala	87	89	86	82	81	87	80	82	83	86	88	84	83	80	79
4. Sailkot	85	88	90	88	87	84	82	87	87	90	90	86	92	88	87
5. Peshawar	98.5	99	98.4	98	98	8.5	99	99	98.5	98	99	99.5	98.5	99	99
6. Sukkuar	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7. Quetta	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8. Hyderabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9. Karachi	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10. P.E.C.H.S. KR	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11. Hub	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: PTCL

Regarding the call completion rate, telex exchanges in Gujranwala, Sailkot, Peshawar and Sukkur show high performance, but Multan's performance is low. The situation of other project areas is unknown due to a lack of data.

Table 7: Call Completion Rate

(Unit: %)

	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	-		-		-	-	50	52	58	70	44	52	50	40	35
2. Faisalabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3. Gujranwala	84	87	86	88	98	95	98	99	97	98	97	99	98	99	98
4. Sailkot	78	80	82	78	85	88	95	98	96	97	98	98	99	99	98
5. Peshawar	82	79	81	82	86	84	78	82	83	80	79	82	82	80	78
6. Sukkuar	97	95.3	97.1	97.6	96.4	93.2	98.4	98.1	98.2	98.1	97.9	97.1	97.7	98,3	98.4
7. Quetta	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8. Hyderabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9. Karachi	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10. P.E.C.H.S. KR	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11. Hub	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: PTCL

As shown in Table 8, the reliability of telex lines is varied. Telex exchanges such as Gujranwale, Sailkot, and P.E.D.H.S. KR have shown improvement, while Multan, Faisalabad, Peshawar, Quetta and Hyderabad have not recorded conspicuous improvement.

Table 8: Faults per 100 Main Telex Lines a Year

(Unit: times/100lines/year)

	Appraisal (1986)	(1987)	(1988)	(1989)	(1990)	(1991)	(1992)	Year 1 (1993)	Year 2 (1994)	Year 3 (1995)	Year 4 (1996)	Year 5 (1997)	Year 6 (1998)	Year 7 (1999)	Year 8 (2000)
1. Multan	-	-	-	-	-	-	30	40	33	23	50	38	30	33	22.2
2. Faisalabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	25	28	30	26	25	27	31	33	35
3. Gujranwala	360	278	344	389	346	252	208	151	126	100	85	25	17	20	33
4. Sailkot	71	95	80	87	93	89	80	75	60	38	32	29	27	22	20
5. Peshawar	128	121	132	119	116	130	131	127	123	120	118	121	124	123	120
6. Sukkuar	2.76	3.27	3.92	3.41	2.95	4.24	3.34	4.02	n.a.						
7. Quetta	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14	14	14	15	14	16	17	17	17
8. Hyderabad	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.48	5.76	0.48	0.80	0.16	0.32	1.28	0.96	0.16
9. Karachi	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10. P.E.C.H.S. KR	43.66	46.87	45.93	43.75	48.12	50.15	42.47	44.00	45.39	56.84	56.58	58.33	54.62	36.98	32.89
11. Hub	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5	5	5	5	5	5	5	5	5

Source: PTCL

(3) Recalculation of FIRR

At the project appraisal, FIRR was 14.7%. Due to a lack of relevant data and information, FIRR cannot be recalculated.

(Assumption of FIRR)

Project life: 20 years

Benefit: Revenue of telex charge of the project Cost: (i) Project cost and (ii) O&M cost

2.4 Impact

This project contributed to the improvements of telecommunication by telex after completion of the project in 1993. However, the utilization of telex started to reduce in 1996, from when the alternative telecommunication methods such as fax and internet became popular progressively in Pakistan. At present, the impact of this project is limited compared to the original plan.

2.5 Sustainability

2.5.1 Executing Agency

Pakistan Telecommunication Company Limited (PTCL) was established in 1996 to undertake the telecommunication business formally carried on by the Pakistan Telecommunication Corporation (PTC). PTCL is the primary provider of domestic and international telecommunications services in Pakistan, including basic telephone service, telegraph, fax, telex, public data, Internet, ISDN and universal assess numbers.

2.5.2 Financial Status

The financial statements of PTCL in 1996/97 and 1997/98 show that operating profits increased 23.3%, while operating costs grew 8.4%. The essential indicators of PTCL's general profitability, based on the financial documents in 1997/98, were (i) Rate of investment: 11.6%; (ii) Return on sales: 31.43%; and (iii) total assets turnover: 37.08%, which indicates good performance.

Table 9: Comparative Income Statement

(Unit: 1,000 Rupees)

	,	· , , ,
	June 30, 1998	June 30, 1997
Revenue	46,466,039	40,593,861
Operating costs	26,312,065	24,253,830
Operating profit	20,153,974	16,340,031
Other income	239,033	1,240,658
Profit before financial charges and taxation	20,593,007	17,580,689
Financial charges	6,023,800	5,396,901
Profit before taxation	14,569,207	12,183,788
Provision for taxation	-	-
Profit after taxation	14,569,207	12,183,788
Unappropriated profit brought forward	39,353	780,565
Available for appropriation	14,608,560	2,964,353
Appropriations	14,180,000	12,925,000
- Transfer to general reserve	5,000,000	4,000,000
- Interim dividend Nil (1997: @7.5%)	-	3,825,000
- Final dividend @ 18% (1997: @10%)	9,180,000	5,100,000
Unappropriated profit carried forward	28,560	39,353

Source: PTCL

Table 10: Balance Sheet

Capital & Liabilities (Unit: 1,000 Rupees)

	June 30, 1998	June 30, 1997
Authorized shared capital	111,000,000	111,000,000
Capital & reserve	60,428,560	55,039,353
Redeemable capital	2,623,689	3,503,358
Long term and deferred liabilities	28,971,262	20,321,748
Current liabilities	33,263,278	37,281,847
Total Capital & Liabilities	125,286,789	116,146,306

Property & Assets		(Unit: 1,000 Rupees)
	June 30, 1998	June 30, 1997
Fixed capital expenditure	88,855,493	85,548,306
Long term investments	2,763,021	1,357,618
Long term loans	1,303,249	1,059,399
Long term deposits, prepayments and deferred costs	445,989	234,383
Current assets	31,919,037	27,946,600
Total Property & Assets	125,286,789	116,146,306

Source: PTCL

3. Lessons Learned

In the area with rapid technological development such as telecommunication, it is necessary to adequately consider the possibility of future technological innovation at the stage of project selection. A more flexible system to reduce or change the scope at the stage of project implementation may well be necessary, in accordance with a significant change in the precondition of the project due to technological innovation.

Comparison of Original and Actual Scope

Item	Plan	Actual
(1) Project Scope		
Installation of electric telefax		
exchanges at 11 cities	(Capacity of telex line)	(Capacity of telex line)
1) Multan	500	300
2) D. I. Khan	100	-
3) Faisalabad	1,000	450
4) Gujranwala	500	200
5) Sailkot	500	400
6) Rawalpindi / Islamabad	500	-
7) Abbottabad	100	-
8) Muzaffarabad	100	-
9) Peshwar	300	300
10) Mardan	250	-
11) Sukkuar	100	150
12) Quetta	250	200
13) Hyderabad	250	250
14) Karachi	3,500	3,000
15) P. E. C. H. S. KR	1,000	90
16) Hub	250	90
	(Total: 9,200)	(Total: 5,430)
(2) Implementation Schedule		, ,
1) Preparation of Tender	Apr. 1987 – Jun 1987 (3M)	Feb. 1987 - Jan. 1988 (12M)
Documents	Tipli 1907 can 1907 (Eliz)	1 60. 150, 0 0 1 1500 (1211)
2) Loan Agreement	Aug. 1987	Sep. 1987
3) Tender Floating	Jul. 1987 – Sep. 1987 (3M)	Feb. 1988 – May 1988 (2M)
4) Tender Evaluation	Oct. 1987 – Dec. 1987 (3M)	Aug. 1988 – Sep. 1989 (2M)
5) Contract Negotiation	Jan. 1988 – Feb. 1988 (2M)	Oct. 1989 – Feb. 1990 (5M)
6) Manufacturing / Shipping	Mar. 1988 – Jun. 1989 (4M)	May 1991 – May 1992 (13M)
Installation	Mai. 1900 Juli. 1909 (411)	(13M1)
7) Provisional Acceptance /	Apr. 1989 – Aug. 1989 (5M)	Jan. 1992 – Jun 1992 (6M)
Commissioning		
8) Final Acceptance	Aug. 1990	May 1993
•		•
Total Project Period	Aug. 1987 – Aug. 1990 (37M)	Sep. 1987 – Aug. 1993 (72M)
	(from L/A to Final Acceptance)	(from L/A to Final Acceptance)
(3) Project Cost		- 1
Foreign currency	1,900 million Yen	1,351 million yen
Local currency	791 million Yen	0 million Yen
,	(60.8 million Rs)	(0 million Rs)
Total	2,691 million Yen	1,351 million yen
ODA loan portion	1,900 million Yen	1,351 million yen
Exchange Rate	1 Rs = 13.0 Yen	Rs = Yen
Exchange Kate	1 Rs = 13.0 Yen (as of January 1986)	Rs = Yen (Year unkown)