

**ASIAN DEVELOPMENT BANK**

**PCR: PAK 24098**

**PROJECT COMPLETION REPORT**

**ON THE**

**TECHNICAL EDUCATION PROJECT**  
(Loan 1373-PAK[SF])

**IN**

**PAKISTAN**

**November 2004**

## CURRENCY EQUIVALENTS

Currency Unit	–	Pakistan Rupee/s (PRe/PRs)	
		<b>At Appraisal</b> (August 1995)	<b>At Project Completion</b> (June 2004)
PRe1.00	=	\$0.0323	\$0.0174
\$1.00	=	PRs31.00	PRs57.50

## ABBREVIATIONS

ADB	–	Asian Development Bank
B.Ed(Tech)	–	Bachelor in Education (technology)
BTE	–	Board of Technical Education
CPRM	–	Country Portfolio Review Mission
DAE	–	Diploma of Associate Engineering
DTE	–	Directorates of Technical Education
DOE	–	Department of Education
FIU	–	federal implementing unit
GCT	–	Government College of Technology
GPI	–	Government Polytechnic Institute
IMC	–	Institute Management Committee
MIS	–	Management Information System
MOE	–	Ministry of Education
NISTE	–	National Institute of Science and Technical Education
NSC	–	National Steering Committee
NWFP	–	North West Frontier Province
O&M	–	operation and maintenance
PRM	–	Pakistan Resident Mission
PCR	–	project completion report
PCC	–	Project Coordination Committee
PIU	–	project implementation unit
PPTA	–	project preparatory technical assistance
R&D	–	research and development
STVE	–	science, technical, and vocational education
TEVT	–	technical education and vocational training
TEVTA	–	Technical Education and Vocational Training Authority
TLR	–	teacher learning resource
TTTC	–	Technical Teacher Training Center
TTW	–	Teacher Training Wing

## NOTES

- (i) The fiscal year (FY) of the Government ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2000 begins on 1 July 1999 and ends on 30 June 2000.
- (ii) In this report, "\$" refers to US dollars.

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## BASIC DATA

### A. Loan Identification

1.	Country	Pakistan
2.	Loan Number	1373-PAK(SF)
3.	Project Title	Technical Education Project
4.	Borrower	Islamic Republic of Pakistan
5.	Executing Agencies	a. Ministry of Education (Federal) b. Department of Education (Balochistan) c. Department of Education (NWFP) d. Department of Education (Punjab) e. Department of Education (Sindh)
6.	Amount of Loan	SDR38,473,000
7.	Project Completion Report Number	PCR:PAK 868

### B. Loan Data

1.	Appraisal	
	– Date Started	22 April 1995
	– Date Completed	9 May 1995
2.	Loan Negotiations	
	– Date Started	7 August 1995
	– Date Completed	10 August 1995
3.	Date of Board Approval	19 September 1995
4.	Date of Loan Agreement	18 January 1996
5.	Date of Loan Effectiveness	
	– In Loan Agreement	17 April 1996
	– Actual	27 March 1996
	– Number of Extensions	0
6.	Closing Date	
	– In Loan Agreement	30 June 2002
	– Actual	30 June 2004
	– Number of Extensions	3
7.	Terms of Loan	
	– Interest Rate	1%
	– Maturity	35 years
	– Grace Period	10 years

8.	Disbursements
a.	Dates

Initial Disbursement	Final Disbursement	Time Interval
24 March 1997	Not yet completed	
Effective Date	Original Closing Date	Time Interval
27 March 1996	30 June 2002	75 months

b. Amount (\$ million)

Category or Subloan	Original Allocation	Last Revised Allocation	Amount Canceled	Net Amount Available	Amount Disbursed	Undisbursed Balance
Civil Works	8.71	7.80	(0.22)	8.39	6.05	2.34
Furniture, Equipment, Service Vehicles, and Instructional Materials	30.87	23.76	2.32	25.94	19.34	6.60
Staff Development	3.00	2.48		2.54	2.39	0.15
Consulting Services	5.77	5.57	(0.81)	5.87	5.41	0.46
Incremental Recurrent Cost	1.30	1.07		1.19	0.64	0.55
Unallocated	8.51	2.24	3.82	2.56		2.56
Service Charge	1.84	1.52		1.63	1.21	0.42
Imprest Account				(0.10)	1.88	(1.98)
<b>Total</b>	<b>60.00</b>	<b>44.44</b>	<b>5.12</b>	<b>48.03</b>	<b>36.92</b>	<b>11.10</b>

Source: Report and Recommendation of the President, Loan Financial Information System.

9. Local Costs (Financed)	
- Amount (\$ million)	8.7
- Percent of Local Costs	65.1
- Percent of Total Cost	23.6

**C. Project Data**

1. Project Cost (\$ million)

Cost	Appraisal Estimate	Actual
Foreign Exchange Cost	45.0	28.3
Local Currency Cost	33.0	16.8
<b>Total</b>	<b>78.0</b>	<b>45.1</b>

Source: Report and Recommendation of the President, Loan Financial Information System and Federal &amp; Provincial Project Implementation Units.

2. Financing Plan (\$ million)

Cost	Appraisal Estimate	Actual
Implementation Costs		
Borrower Financed	18.0	8.2
ADB Financed	58.2	35.7
Other External Financing		
<b>Total</b>	<b>76.2</b>	<b>43.9</b>
IDC Costs		
Borrower Financed		
ADB Financed	1.8	1.2
Other External Financing		
<b>Total</b>	<b>78.0</b>	<b>45.1</b>

ADB = Asian Development Bank, IDC = interest during construction.

Source: Report and Recommendation of the President, Loan Financial Information System and Federal &amp; Provincial Project Implementation Units

## 3. Cost Breakdown by Project Component (\$ million)

Component	Appraisal Estimate	Actual
Base Cost		
Land	0.3	0.1
Civil Works	13.8	9.6
Furniture, Equipment, Vehicles, and Instructional Material	34.3	21.6
Staff Development	3.0	2.5
Consulting Services	5.7	5.4
Incremental Recurrent Cost	7.9	1.6
<b>Total Base Cost</b>	<b>65.0</b>	<b>40.8</b>
Contingencies		
Physical	5.5	0.0
Price	5.7	0.0
<b>Total Contingencies</b>	<b>11.2</b>	<b>0.0</b>
Taxes & Duties	0.0	1.2
Service Charges	1.8	1.2
Imprest Account	0.0	1.9
<b>Total Project Cost</b>	<b>78.0</b>	<b>45.1</b>

Source: Report and Recommendation of the President, Loan Financial Information System and Federal & Provincial Project Implementation Units

## 4. Project Schedule

Item	Appraisal Estimate	Actual
Establishment of FIU and PIUs		
Start	July 1995	July 1995
Completion	December 1995	March 1997
Civil Work Engineering Designs		
Start	October 1995	January 1996
Completion	June 2000	Dec 2002
Civil Works		
Start	October 1996	July 1996
Completion	June 2001	December 2003
Equipment, Furniture, and Vehicles		
Start	April 1996	January 1996
Completion	December 2001	June 2004
Installation	December 2001	June 2004
Instructional Materials		
Start	July 1996	July 1998
Completion	December 2001	June 2004
Staff Development		
Start Fellowship-Foreign	January 1997	July 1997
Start Fellowship-Local	January 1997	January 1997
Completion	December 2001	June 2004
Consultant Services		
Start International	July 1996	July 1996
Completion International	September 00	September 2001
Start Domestic	April 1996	July 1996
Completion Domestic	December 2001	September 2001

PIU = project implementation unit, FIU = federal implementation unit.

Source: Report and Recommendation of the President and Federal & Provincial Project Implementation Units

## 5. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 1 October to 31 December 1998	S	S
From 1 January to 31 March 1999	S	S
From 1 April to 30 June 1999	S	S
From 1 July to 30 September 1999	S	S
From 1 October to 31 December 1999	PS	PS
From 1 January to 31 March 2000	S	S
From 1 April to 30 June 2000	S	S
From 1 July to 30 September 2000	S	S
From 1 October to 31 December 2000	PS	S
From 1 January to 31 March 2001	PS	S
From 1 April to 30 June 2001	PS	S
From 1 July to 30 September 2001	PS	S
From 1 October to 31 December 2001	PS	S
From 1 January to 31 March 2002	PS	S
From 1 April to 30 June 2002	S	S
From 1 July to 30 September 2002	S	S
From 1 October to 31 December 2002	S	S
From 1 January to 31 March 2003	S	S
From 1 April to 30 June 2003	S	S
From 1 July to 30 September 2003	S	S
From 1 October to 31 December 2003	S	S
From 1 January to 31 March 2004	S	S
From 1 April to 30 June 2004	S	S

S = satisfactory, PS = partly satisfactory.

Source: ADBs Project Performance Report database

**D. Data on Asian Development Bank Missions**

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of Members <sup>a</sup>
Contact Mission 1	11–28 Jun 1994	3	37	a, a, b
Fact Finding	31 Jan–23 Feb 1995	4	80	a, b, c, d
Appraisal	22 Apr–9 May 1995	6	91	a, e, f, g, h, i
Inception	19–27 Mar 1996	2	18	a, j
Contact Mission 2	18–20 Sep 1996	1	3	a
Review 1	2–14 Jun 1997	1	13	k
Special Review 1	18–23 Aug 1997	1	6	k
Review 2	4–8 May 1998	1	5	k
Review 3	27–28 Aug 1998	2	4	l, m
Disbursement 1	2–5 Nov 1998	1	8	l
Review 4	6–13 Nov 1998	1	4	k
Midterm Review	9 Aug–3 Sep 1999	5	101	f, k, l, n, o
Special Review 2	3–17 Nov 1999	2	30	n, o
Disbursement 2	23–27 Oct 2000	1	5	p
Special Review 3	26–27 Feb 2001	1	2	k
Review 5	11 Mar–3 Apr 2002	2	26	n, o
Review 6	6–29 Aug 2003	2	24	o, q
Review 7	11 February 2004	2	2	o, q
Project Completion Review <sup>b</sup>	5 May–13 Jun 2004	3	85	f, o, q

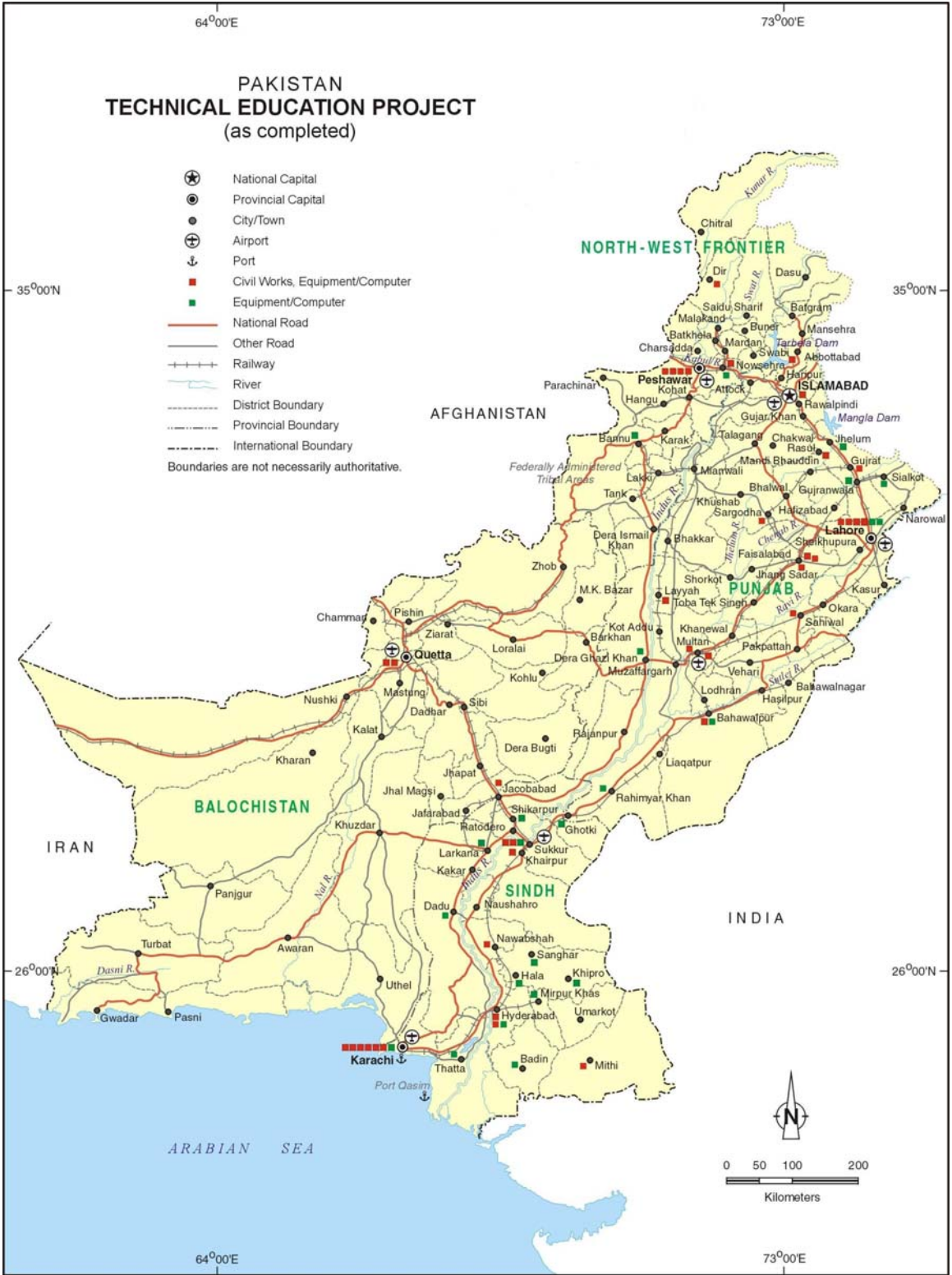
<sup>a</sup> a - senior education specialist, b - manager, c - education specialist, d - programs officer, e - financial analyst, f - staff consultant, g - planning and management expert, h - secretary, i - chief, j - control officer, k - project specialist, l - senior control officer, m - senior project implementation officer, n - project implementation officer, o - assistant project analyst, p - senior disbursement assistant, q - senior project implementation specialist.

<sup>b</sup> The mission comprised Nurul Huda, senior project implementation specialist, and Liaqat Ali, assistant project analyst. A staggered mission was conducted due to other office commitments.

Source: Back-to-Office Reports

# PAKISTAN TECHNICAL EDUCATION PROJECT (as completed)

- ★ National Capital
  - Provincial Capital
  - City/Town
  - ✈ Airport
  - ⚓ Port
  - Civil Works, Equipment/Computer
  - Equipment/Computer
  - National Road
  - Other Road
  - +—+—+ Railway
  - River
  - - - - District Boundary
  - - - - Provincial Boundary
  - - - - International Boundary
- Boundaries are not necessarily authoritative.



## I. PROJECT DESCRIPTION

1. Pakistan's economy grew impressively for 2 decades until the late 1990s, outpacing the average growth in South Asia and other low-income countries. Private sector investments, particularly in manufacturing, created a steadily growing demand for middle-level technicians and graduates of technical education institutions. To increase external efficiency and meet the rising demand for high-quality graduates, the Government recognized the need to upgrade polytechnic institutions and improve facilities to reorient education to meet market needs.<sup>1</sup> After financing the first technical education project,<sup>2</sup> the Asian Development Bank (ADB) provided two advisory technical assistance (TAs) grants<sup>3</sup> for analyzing key policy issues in technical education. Based on the advisory TAs' recommendations, which were incorporated into the National Education Policy 1992–2002 and the Eighth Five-Year Plan (8FYP) 1993–98, the Government asked ADB to support a second technical education project (the Project). The National Education Policy and the 8FYP highlighted the need for improving the quality, relevance, and efficiency of the technical education and vocational training (TEVT). In response to this request, ADB approved a project preparatory technical assistance (TA)<sup>4</sup> to prepare a detailed proposal for the Project. This proposal was to be consistent with the Government's policy and development objectives for the TEVT sector, as well as ADB's country strategy and program for human resources development and poverty reduction.

2. The Project, as appraised, aimed to improve the quality of technical education and enhance the employment opportunities of polytechnic graduates by supporting a demand-driven polytechnic system that responds more efficiently to labor market needs.<sup>5</sup> The project objectives were to improve the quality, relevance, external efficiency, and managerial and financial sustainability of the selected polytechnic institutions, including one new polytechnic for women. The Project had three main components: (i) strengthening the quality and relevance of technical education (Component 1), (ii) improving external efficiency (Component 2), and (iii) building institutional capacity (Component 3).

3. The project outputs, as expected at appraisal, included:

- (i) **Component 1:** Teacher training for upgrading the skills of 1,000 teachers; establishment of a Bachelor in Education Degree (technology) (B.Ed. [Tech]); assistance to the National Institute of Science and Technical Education (NISTE),<sup>6</sup> and strengthening of technical teacher training centers; upgrading 43 selected Government polytechnic institutions (GPIs), including a new polytechnic institution for women in Balochistan; and upgrading private polytechnics by supporting education foundations in Punjab and Sindh.

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<sup>1</sup> ADB. 1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Islamic Republic of Pakistan for the Technical Education Project*. Manila.

<sup>2</sup> ADB. 1992. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Islamic Republic of Pakistan for the Technical Teacher's Training and Polytechnic Institutes Project*. Manila.

<sup>3</sup> ADB. 1988. *Technical Assistance to Pakistan for Technical and Vocational Education Development Study*. Manila; ———. 1990. *Technical Assistance to Pakistan for Education Program for Technical Education and Vocational Training*. Manila.

<sup>4</sup> ADB. 1994. *Technical Assistance to Pakistan for Technical Education Project*. Manila.

<sup>5</sup> ADB. 1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Islamic Republic of Pakistan for the Technical Education Project*. Manila. (Page 11)

<sup>6</sup> This was called the National Institute of Technical Education (NITE) at appraisal, but was changed to NISTE in April 1997 to include training of science teachers as well.

- (ii) **Component 2:** Introduction of 22 new technologies; the development of curriculum and teaching learning materials (TLR); provision of workshops, laboratories, and equipment; and improved labor market links by establishing a management information system (MIS) and institute management committees (IMCs).
- (iii) **Component 3:** Improved technical education planning and management systems at the provincial and federal level, and strengthened research and development (R&D) functions by establishing R&D cells.

4. The other benefits anticipated at appraisal were (i) the development of teachers and other professional and technical staff through in-country training (1,880 person-months), and overseas training (610 person-months); (ii) an increase in enrollment capacity from 26,800 at appraisal to 29,800 at project completion as a result of improved infrastructure; and (iii) an increase in the annual output of graduates from 8,000 at appraisal to about 9,000 due to the introduction and full operation of new technology courses.

## II. EVALUATION OF DESIGN AND IMPLEMENTATION

### A. Relevance of Design and Formulation

5. The project design and formulation, which focused on strengthening the country's technical education, were relevant. The Project supported improving technical education quality and relevance to meet the labor market needs, enhancing external efficiency, and expanding capacities and introducing new technologies to increase access to better training opportunities. The Project was consistent with ADB's development strategy for Pakistan and its overarching objective of reducing poverty. With unemployment increasing (around 6%), poverty climbing (over 32%), and jobs shrinking, the scope of the Project was appropriate—and its interventions were timely—to address the rising demand for skilled labor and technicians. By upgrading dilapidated infrastructure and lab facilities, and by providing new equipment for existing and new technologies, the Project elevated the training environment of polytechnics as well as the diversity of skills training for new job opportunities. The Project also built upon ADB's strategy to promote public-private partnership by establishing the IMCs, where the Government and private sector could collaborate on modernizing technical education to achieve market-driven skills development. The Project also provided special support to upgrade private polytechnics, which encouraged private sector involvement in technical education. Recognizing the needs of disadvantaged women, the Project also expanded the capacity of polytechnic institutions for women. That attracted women for skills training, enhancing their employment opportunities.

6. The Project continued to be relevant in the context of a country with increasing poverty—rural poverty rose to 36.3% in 1998/99—and a large labor force growing faster than 2% annually. Most workers are self-employed or unpaid family workers, and females comprise less than 15% of the workforce. Unemployed youths have little opportunity for on-the-job training and skills development. Therefore, the Government's strategy was to pursue the development of skilled workers and the generation of employment, especially in small and medium enterprises. Moreover, the engineering workforce in Pakistan is dominated largely by unskilled and semi-skilled workers. The technician-to-engineer ratio is low at 1:1, compared to the more ideal 5:1 ratio. With the economy recovering (gross domestic product growth above 6%) and the manufacturing sector rebounding (a record 13% expansion in 2004), the Government's plan for industrialization will require an increase in the technician-to-engineer ratio.

7. The Government recognizes the importance of TEVT as part of its education sector development plan. The Project's relevance is emphasized in the Government's 2001 Education Sector Reforms Strategic Plan, Education Sector Reforms Action Plan, and Poverty Reduction Strategy Paper, which emphasize the importance of TEVT in producing skilled workers and technicians for the economy. The Ten Year Perspective Plan (2001–11) points out the need for increasing opportunities for technical, commercial, and vocational education in the country, and prioritizes the introduction of secondary and post-secondary technical education. As articulated in the Country Strategy and Program 2002–2006 for Pakistan,<sup>7</sup> ADB's development assistance focuses on poverty reduction through sustainable pro-poor growth, inclusive social development, and good governance. It also highlights the need for comprehensive human development strategies.

8. The Project was implemented with comprehensive support for technical education network development of improved infrastructure facilities, distributed equitably among four provinces. Resource allocation to address the needs for sustained quality improvement and labor market demand was well thought out, including consideration of geographical balance in the development of polytechnics in the provincial headquarters and selected districts for the urban unemployed and rural poor. The network was designed to deliver improved skills training through better-equipped workshops and upgraded teacher training facilities. Lessons from the implementation of the first technical education project were incorporated into the formulation of this Project, which promoted (i) decentralization in project implementation to provinces, with federal responsibility limited to curriculum and TLR development; (ii) capacity building for planning and management; and (iii) staff development. The proposed cost-recovery measures and the establishment of the IMCs were important new elements in the project design to achieve sustainable development of the TEVT sector.

9. The project preparatory TA, implemented in 1995, was also relevant and properly designed. The TA undertook a comprehensive analysis of the skills needed for the changing labor market, and held detailed stakeholder discussions with concerned Government agencies and private sector representatives in four provinces. The Appraisal Mission conducted a sample survey and prepared a profile of target groups, mainly the poorer segment of the urban and rural population. The TA developed a need-based project design, within a participatory framework of ownership by the concerned Government agencies.

## **B. Project Outputs**

### **1. Strengthening Quality and Relevance**

10. This component included upgrading teachers' skills, improving facilities of selected polytechnic institutions as well as teacher training centers and institutions, assisting NISTE and introducing B.Ed. (Tech), and supporting private sector polytechnics. The facilities development also included building a new polytechnic for women in Balochistan, and a new office for the Board of Technical Education (BTE) in North West Frontier Province (NWFP) (Appendix 1).

11. **Polytechnics Facilities Improvement.** The civil works for 32 polytechnics (2 in Balochistan, 5 in NWFP, 14 in Punjab, and 11 in Sindh) and one office building for BTE were completed satisfactorily.<sup>8</sup> A wide variety of facilities were constructed based on the requirements

<sup>7</sup> ADB. 2003. *Country Strategy and Program Update (2004–2006): Pakistan*. Manila.

<sup>8</sup> During implementation, the Government decided to drop some civil works packages in Punjab and Sindh, where infrastructure was adequate. Instead, the Government decided to provide additional support for equipment, which were considered more important for the institutions.

of the institutions: classrooms, workshops, laboratories, libraries, hostels, auditorium, and administrative block. Although some civil works started on time, most of the construction came in the fourth and fifth years of the Project due to delays in securing clearances for sites, preparation of design and estimates, and contract awards. Most of the completed facilities were operational during the Project Completion Review (PCR) Mission, though some facilities for new technologies had to wait until 31 July 2004 for the delivery and installation of new equipment. The upgraded facilities created an appropriate physical and educational environment for the polytechnic institutions, which had consisted of old buildings and outdated lab facilities. The new women's polytechnic institution in Quetta, the capital of Balochistan, the country's most underdeveloped and conservative province, created the first opportunity for women to learn new skills for employment. It started functioning ahead of schedule with a projected enrollment of 240 students. Over the past 2 years, enrollment has reached 336 students, comprising mainly poor women from the rural areas. New facilities also were built for a women's polytechnic institution (Karimabad, Karachi), which previously was housed in a rented building. It began operations in 2002. However, the PCR Mission noted that one section of the building had problems with its electricity supply, which the provincial authority agreed to fix by 30 June 2004. The Mission also found that the student hostel at Swabi polytechnic was not functional due to a lack of staff, and urged the project management to make it functional immediately. The new BTE building for NWFP was completed satisfactorily, and became functional in 2002.

12. **Teacher Training Facilities.** The Project supported six technical teacher training facilities at the provincial and/or district level, as well as the national training institute, NISTE. This constituted the key network of in-service and pre-service training of teachers. The provincial technical teacher training centers (TTTCs) comprise two existing TTTCs at Faisalabad and Sukkur, 1 new construction at Peshawar, and 3 three technical teacher training wings (TTWs) attached to government colleges of technologies (GCT Karachi, GCT Hyderabad, and GCT Lahore). By providing new infrastructure, modern audiovisual aids, and other necessary equipment, the Project improved the training opportunities and teaching environment for technical teachers training. The Project also strengthened the quality and relevance of technical education by updating polytechnic teachers on content, industrial experience, and pedagogical skills.

13. The improved teacher training facilities are operational, offering pre-service and in-service programs, such as diplomas in associate engineering (DAE), B.Tech degree, and short courses. The startup of the new TTTC at Peshawar was delayed by more than a year due to electricity supply problems of the local electricity company. The PCR Mission raised this issue with the provincial government and the electricity company, which assured the TTTC of an adequate supply of electricity by 30 June 2004 to make it fully functional. The PCR Mission also noted that after the TTTC in Sukkur was completed, the provincial government of Sindh transferred it to a new university established near that site. The government provided a new replacement facility for the TTTC at the GCT Khairpur compound, which is suitable for teachers training in that region. However, the Mission expressed concern that the government made this decision unilaterally, and urged the provincial government to confirm to ADB by 31 July 2004 that the replacement facility would meet all the requirements for the TTTC. Otherwise, ADB might decide to recover the loan funds used for this construction.

14. **Assistance to NISTE.** The facilities improvement assistance for NISTE supported the rehabilitation of workshops, computer labs, and equipment. It also provided for additional staff, and in-country and overseas training of staff, with the aim of making NISTE the primer institute for in-service and pre-service training in technical education. With the help of consultants, NISTE coordinated the revisions to the DAE curriculum and the design of the new curriculum for

new technologies. The new degree program for B.Ed (Tech), which was introduced at NISTE in 2000, was awarded for completing a 3-year, pre-service technical teacher training program. The first class graduated in 2003. Demand for B.Ed (Tech) program is expected to grow over the next 3 to 4 years as (i) new service rules are implemented that require B.Ed (Tech) as the entry level qualification for polytechnic instructors, and (ii) more students become aware of this new higher-level degree program. To effectively run this new program, however, NISTE will need additional recurring budget allocations from the Government, as well as some collaborative training funds arrangements with the polytechnics for stipend and financial assistance. NISTE has introduced some income-earning short skills training programs, which augment its budget and utilize staff and facilities more efficiently.

15. **Upgrading Teachers' Skills.** A large in-country training program through NISTE and other provincial teacher training facilities upgraded the skills of many teachers. While the appraisal target called for 1,000 staff to receive 1,881 person-months of in-country training, 2,219 teachers and other technical staff were trained for 3,372 person-months. The major focus of the training was on upgrading skills through content updating, industrial training, and pedagogical training. However, overseas training fell short of the appraisal target of 610 person-months as 254 person-months of overseas training were provided in (i) curriculum development and modern curriculum approaches; (ii) TLR development, and teaching methods and practices; (iii) labor market assessment and skills-need identification; and (iv) management of technical teacher education (Appendix 2). The underutilization of the overseas training provision was mainly due to the Government's restrictions on the use of loan funds for overseas training, as more local training was encouraged. Thus, in-country training through experienced resource persons became the main thrust for staff development, which led to almost doubling the appraisal provision for local training. Overall, the implementation of teachers training programs was completed satisfactorily, despite the initial delay in the preparation of TLR and other training materials. However, the provision of replacement teachers to facilitate the release of teachers for training was unrealistic due to the lack of qualified candidates to work temporarily as replacements.

16. **Assistance to the Private Sector.** To promote private sector investment, the Project earmarked some funds for upgrading the private polytechnic institutions through two provincial education foundations in Punjab and Sindh. While this was a worthy initiative, the loan funds were not as attractive to the private entrepreneurs as envisaged at appraisal. Moreover, the education foundations lacked experience in handling loan funds. The lack of adequate responses from private bidders, and the lengthy approval procedures of the foundations, delayed the utilization of the funds. As a result, only 10 private institutions (6 in Punjab, 4 in Sindh) received funds. The PCR Mission found that some of these institutions were in operation, while others were expected to start in September 2004. The delayed release of funds by the foundations was the main reason for the late completion of some of these institutions. The private investors reported that the implementation of the funds was complicated.

## 2. Improving External Efficiency

### a. Introduction of New Technologies

17. To promote market-driven technical education, the Project supported the introduction of 30 new technologies<sup>9</sup> in 21 selected institutions (Appendix 3). These technologies were chosen

<sup>9</sup> While 22 new technologies were planned at appraisal, eight more were added during implementation at the Government's request in consideration of their market demands. These included entirely new technologies, as well as existing technologies of some institutions that were newly introduced in other places.

based on the existing and emerging demands of the job market.<sup>10</sup> Some of them were commonly taught technologies at institutions (computers, electronics, and office management), while others were specific to provinces and institutions. To effectively implement these technologies, the Project provided the necessary infrastructure, and qualified teachers and other technical staff. In addition to workshops and labs for hardware technical training and demonstrations, computer labs were established in selected polytechnics for training in office management, computer skills, and information technology. With the help of consultants, NISTE developed TLR and curricula for the new technologies, and prepared the list of equipment. The consultants, along with provincial and local experts, prepared 141 TLRs (textbooks, lab manuals, and reference guides). The TLRs were distributed to project institutions and libraries. The new curricula, TLRs, and related instructional materials developed under the Project greatly broadened staff knowledge. They also benefited students through improved subject content and updated teaching practices that took into account the labor market needs. However, the real impact and benefits of the new curricula and TLR, as well as the new technologies, will depend on the quality of teachers, their training on the improved teaching methods, and the effective use of the new equipment.

18. The procurement of equipment for new technologies took longer than expected due to delays in finalizing specifications, and lengthy approval procedures. However, most of the equipment was procured and installed before the PCR Mission, and the installation of the remaining equipment was expected by 31 July 2004. While training in new technologies—particularly short training courses—started in some institutions last year, implementation of the remaining new technologies was scheduled to begin during the September 2004 academic session. The delay in the recruitment of teachers for new technologies due to a ban on recruitment was a major concern. A special waiver from the relevant authorities recently helped overcome that problem. As a result, most of the teacher requirements were filled by recruitment on a regular basis, or contracts and outsourcing, against approved positions.

#### **b. Improving Labor Market Links**

19. The Project improved labor market links through the development of the labor market MIS, and the establishment of the IMCs to strengthen private sector involvement in technical education. Based on a labor market survey, the consultants prepared the MIS for maintaining and updating the database for technical education development and policy decision-making. The Project formally established labor market links, reorienting TEVT from a supply-driven system to a demand-driven system, through the IMCs in selected institutions. The IMCs, comprising representatives of the chambers of commerce and industry, was instrumental in creating an environment of understanding for building closer links between institutions and the private sector. The IMCs were more active in institutions in the major cities and near industrial belts, becoming involved in management decisions, academic planning, and hiring of contract staff. They also provided technical assistance, and job placement and internships for students. One of the key functions of the IMCs was to provide feedback on labor market demands, and to help improve curricula and teaching practices to make them more responsive to job markets and industries.

20. The performance of the IMCs, however, varied widely. Differences in attitude and leadership of the IMC chairpersons selected from the private sector, as well as the principals of

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<sup>10</sup> Some of them were mining, textile spinning and weaving, textile dyeing and printing, computer (hardware and software), computer-aided design, glass and ceramics, environment, automation, electronic publishing, telecommunications, petrochemicals, sugar, and diploma in office management.

institutions, were the main reasons. For example, the IMCs in some institutions in Lahore, Karachi, and Peshawar performed very well. Through discussions with the IMCS, the PCR Mission confirmed that employers and trainers did not appreciate each others problems in the past, and consequently were unable to plan and manage training programs collectively. However, the IMCs generally succeeded in providing the forum for links between industry and institutions. The Project started the process of culture change in the management and administration of polytechnic institutions. The private sector's more active participation would benefit the institutions and industries alike, as the relevance and quality of technical graduates would be enhanced greatly (Appendix 4).

### **3. Building Institutional Capacity**

21. The Project supported the capacity building for technical education planning and management at the Science, Technical and Vocational Education (STVE) wing of the Ministry of Education (MOE). It also strengthened R&D functions by establishing R&D cells at the provincial Directorate of Technical Education (DTE). The STVE wing was provided with the staff required for overall planning and policy support for technical education development and management, including monitoring the subsector performance in response to emerging job markets. The concerned staff of the STVE wing received in-country and overseas training in the relevant fields of technical education planning, development, and project management. The training and workshops on policy planning and strategic matters under the Project contributed significantly to the improvement in the STVE wing's capacity to plan and manage projects.

22. The Project aimed to strengthen (i) R&D in technical education, (ii) labor market analysis, (iii) skill needs assessment, and (iv) job market monitoring. The R&D cells were established as part of the project implementation unit (PIU) to work closely with DTEs. Although staffing was inadequate—with the core staff taken mainly from the DTEs—the R&D cells started well. In addition to gathering labor market data, the R&D cells collected information on the project institutions, and conducted sample surveys and studies on the job market and employment of the graduates. The PCR Mission urged the provincial governments to take the necessary steps to integrate the R&D cells into the DTEs, so they can continue their work after loan closing.

### **C. Project Costs**

23. At appraisal, the total cost of the Project was estimated at \$78.0 million equivalent (including taxes, duties, and physical and price contingencies). Foreign exchange cost accounted for \$45.0 million, while local currency cost accounted for \$33.0 million equivalent. ADB approved a loan of SDR38.473 million (\$60.0 million) from its Special Funds resources to finance the entire foreign exchange cost (including service charges), and \$15.0 million (or 45%) in local currency cost. The ADB loan represented 77% of the estimated project cost. The Government was to provide the remaining local currency cost of \$18.0 million equivalent (23% of the project cost) through budgetary allocations (Appendix 5).

24. At loan closing, the actual project cost was \$45.1 million—about 58% of the original estimate—including \$28.3 million in foreign exchange cost and \$16.8 million equivalent in local currency cost. The main reasons for the lower-than-expected costs were (i) the substantial depreciation of the Pakistani rupee against the US dollar; (ii) the nonuse of the incremental recurring expenditure due to delays in the recruitment of new staff, and no recruitment of replacement teachers during in-service training of regular teachers; (iii) the underutilization of the loan funds for the private sector polytechnics; and (iv) cost estimates at appraisal for some

items that were higher than their actual cost during implementation. Details on the actual cost and estimated foreign and local costs are in the Basic Data section and Appendix 5.

#### **D. Disbursements**

25. The amount disbursed from the ADB loan was \$36.9 million, 62% of the approved loan amount of \$60.0 million. Loan savings of \$5.1 million was canceled on 4 September 2001 and reallocated for emergency drought assistance.<sup>11</sup> An unutilized amount of \$ 11 million would be available for cancellation, after liquidation of the outstanding imprest balance of \$1,873,103.00 by the account closing, expected by 30 November 2004. The projected and actual contract awards and disbursements as of August 2004 are shown in Appendix 6.

#### **E. Project Schedule**

26. The Project was originally scheduled to start in the first quarter of 1996 and be completed in 6 years. The loan, which was approved on 19 September 1995, became effective on 27 March 1996. The loan closing, originally scheduled for 30 June 2002 (Appendix 7), had to be extended by 2 years to 30 June 2004 to complete the civil works and some equipment contracts. Although a few civil works contract started in mid-1996, most of the contracts were awarded 2 years later than anticipated due to delays in finalizing sites, designs and estimates, and contracts approvals. These contracts were awarded mainly in 1998 and 1999, though some were awarded in 2000. While most of these civil works were completed in 2001 and 2003, a few contracts were extended to June 2004. The implementation of civil works progressed slowly due to weak management and supervision by the Government's construction departments, and a lack of adequate PIU staff to monitor the work closely. The procurement of equipment—various existing and new technologies—was the major cause of the implementation delays. The preparation of specifications, bid documents, and formalities in opening letters of credit was slower than expected as most of the equipment was imported. The lack of adequate professional staff at NISTE also delayed the TLR and instructional materials development.

#### **F. Implementation Arrangements**

27. The Project generally was implemented as envisaged at appraisal. The Project had five executing agencies, one in each of the four provinces<sup>12</sup> and one in the MOE. The secretaries of the departments of education (DOE) in each province, as well as the secretary of MOE in the federal Government, were responsible for the Project. A project director, reporting to the secretary of the respective DOE, headed each provincial PIU. The joint education adviser of MOE's STVE Wing headed the federal implementing unit (FIU) as the ex-officio project director. The PIUs and FIU were responsible for day-to-day implementation of the Project. The project coordination committees (PCCs) in the provinces were responsible for coordinating the implementation of the provincial components. The national steering committee (NSC), headed by the MOE secretary, was responsible for overall coordination of the project implementation by the PIUs and the FIU.

28. The PIUs and FIU suffered from a staff shortage. In addition, frequent changes in the project directors slowed project implementation at times. However, the core staff of the PIUs and FIU maintained continuity, and project implementation was satisfactory. Although this was an umbrella project, provinces implemented their components independently. The PCCs used

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<sup>11</sup> ADB. 2001. *Proposed Emergency Assistance for Drought Impact Mitigation and Recovery in the Islamic Republic of Pakistan*. Manila.

<sup>12</sup> Balochistan, North West Frontier Province (NWFP), Punjab, and Sindh.

meetings to make important decisions. However, coordination by FIU in implementing some of the common activities, such as TLR development, and overall staffing of the Project was weak.

### **G. Conditions and Covenants**

29. The Government generally complied with the major loan covenants (Appendix 8). Initially, the Government had difficulties complying with some covenants, such as cost recovery, autonomy of polytechnics, and revision of service rules for teachers. However, substantial progress was made subsequently. For cost recovery, tuition fees were increased in all provinces, except in Punjab (where the last one year's 20% increase was scheduled for approval during the academic year starting September 2004). Most polytechnics started income-generating short training programs. Through the creation of the Technical Education and Vocational Training Authority (TEVTA) as an autonomous body, Punjab made significant progress on autonomy. The other three provincial governments are considering following the TEVTA model, and have initiated the approval process. The revised service rules on recruitment and promotion of teachers have been approved in Punjab. Sindh, Balochistan, and NWFP have initiated necessary actions.

### **H. Consultant Recruitment and Procurement**

30. The Project recruited 199 person-months of international consultants, compared with an appraisal provision of 197 person months. Domestic consultants provided 629.6 person-months of service, against an appraisal provision of 628 person-months (Appendix 9). The recruitment was carried out in accordance with the *ADB Guidelines for Selection of Consultants*. As envisaged at appraisal, the consultants' inputs were distributed to meet the requirements of the provincial and the federal components. The consultant team, which was fielded in July 1996, completed its work in October 2001. Construction supervision consultants were engaged only in Balochistan for a new complex of polytechnics for women. In other provinces, the appropriate governmental departments handled the planning, design, and supervision work. Local competitive bidding was used for the civil work contracts, while the procurement of equipment, furniture, and other goods followed local competitive bidding and international shopping procedures. International competitive bidding was not used, because procurement involved many small packages of more than 200 contracts for different types of equipment.

### **I. Performance of Consultants, Contractors, and Suppliers**

31. The consultants' performance was satisfactory. They did good work in a number of important areas, such as (i) curriculum revision for new technologies, (ii) TLRs development, (iii) private sector links, (iv) examination reforms, (v) industrial placement, and (vi) cost recovery measures. Based on detailed discussions and workshops with the chambers of industries and other private sector representatives, the consultants promoted links with the private sector through the establishment of the IMCs. They established a participatory and cohesive approach to achieving a sense ownership by the stakeholders. The performance of civil works contractors was generally satisfactory. Weak supervision by the concerned building departments caused most of the delays in civil works. The engagement of construction supervision consultants could have improved the quality and accelerated the progress. The performance of the suppliers was generally satisfactory. In Sindh, the computer supplier did not satisfy the specifications. The deficiency was rectified and the supplier was blacklisted.

## **J. Performance of the Borrower and the Executing Agency**

32. The performances of the Borrower and the executing agencies were satisfactory. The Government provided adequate budgetary allocations and released counterpart funds on time. Despite initial startup delays, the Project achieved its appraisal targets within the 2-year extension of the loan approved by ADB. While most of the completed facilities were operational at the PCR Mission, the operation of some facilities for new technologies was delayed for the installation of the equipment by 31 July 2004. The recruitment of teachers for the new technologies also was delayed due to a ban on new recruitment. However, with a special waiver from the authorities, most of the required staff were recruited recently, either as regular appointments or on contracts. The provincial governments were committed to providing adequate staff for the project facilities. In project implementation, Punjab and Sindh performed well, given their larger share, followed by Balochistan. The performance of NWFP and the FIU was slow, however. MOE's coordination of project implementation was weak. MOE would have been more effective if it held regular NSC meetings, and if it interacted more closely with the provincial governments to expedite important decisions on staffing and other matters. However, MOE and the provincial governments interacted regularly with ADB review missions, and their cooperation was considered satisfactory.

## **K. Performance of the Asian Development Bank**

33. ADB closely supervised and monitored the Project, and guided the executing agencies on procurement. ADB approved contract awards on a timely basis and clarified any issue raised by executing agencies for smooth project implementation. In addition to normal review missions, the Pakistan Resident Mission (PRM) held regular follow-up meetings with the project directors after the Project was delegated to PRM. As required, joint review meetings with the project directors also were held to discuss quick resolutions to common implementation issues. The project directors appreciated this initiative by ADB, and found it very useful. Key issues, such as staffing and utilization of the project facilities, were followed closely, which helped sustain pressure on the executing agencies and achieve good progress. The Government appreciated ADB's approval of the 2-year extension of the loan, in light of the implementation delays and the need to complete many equipment contracts.

# **III. EVALUATION OF PERFORMANCE**

## **A. Relevance**

34. The Project was highly relevant to the Government's education sector policy priorities, especially the importance accorded to technical education in reducing poverty through skills development and increased job opportunities for the large workforce. The Project also conformed to ADB's overarching objective to reduce poverty, as well as its emphasis on human capital development through skills training and employment promotion. The Project significantly contributed to the promotion of skilled manpower by (i) improving training facilities, (ii) strengthening teacher training institutions, (iii) introducing relevant technologies, (iv) revamping curricula and instructional materials, and (v) stimulating private sector collaboration. Project initiatives have started to reorient technical education by focusing on the quality and diversity of skills training and increasing relevance to the emerging market demands. The impacts and benefits of the project interventions might take 2–3 years to appear fully through quality training under new and improved facilities. In the context of the Government's and ADB's strategy to reduce poverty, the Project has remained highly relevant as poverty, unemployment, and the

labor force continue to grow in the country. These need to be addressed through skills training to develop trained human resources for employment promotion.

#### **B. Efficacy in Achievement of Purpose**

35. The Project was rated efficacious. The objectives of improving selected polytechnic institutions, including teacher training facilities, and expanding access to quality training to meet market demands were achieved. For enhancing teacher quality, the new pre-service program for B.Ed. (Tech) was introduced. Further, in-country and overseas training was implemented satisfactorily for upgrading teachers' skills and other staff development. Based on the identified skills demands, the new technologies—with appropriate curricula and instructional materials—were introduced. As a result, the initial outcome indicators of the Project showed improvements in a number of fields. The average graduation rates of students, as found from a sample of 10 institutions in two provinces (Punjab and Sindh), increased from 33% in 1992 to above 50% in 2003, though the results varied among different courses in the four provinces. The employment rates, as drawn from a sample 100 students in two provinces (Punjab and Sindh), also improved satisfactorily. The waiting time for jobs ranged from less than 3 months to 1 year, while in some technologies the graduates were employed before getting examination results. With the IMCs established in selected polytechnics and improved labor market-private sector links, internship and job placement increased to about 30% over the past 3 years in the same two provinces of the sample. Capacity building for technical education planning and management of the concerned federal and provincial government agencies was strengthened adequately as part of staff development. The R&D cells established under the Project were a good initiative that improved data collection and analysis of the labor market information. However, understaffing of the cells continued to be a problem. With the country's high unemployment rate at about 6% and labor force growth at 2% annually, the Project made a valuable contribution to TVET development and reorienting skills training to emerging market needs. Those achievements will expand employment opportunities greatly for new graduates.

#### **C. Efficiency in Achievement of Outputs and Purpose**

36. The Project was rated efficient. The Project completed all activities within the 2-year extension of the loan. In addition, many civil works, equipment contracts for existing technologies, and staff development were completed substantially and were operational within the loan period envisaged at appraisal. The loan extension was needed mainly to complete the procurement of equipment for new technologies, which involved many small packages and lengthy import procedures, delivery, and installation. All these facilities are operational, except some programs for new technologies, which are scheduled to start in the September 2004 academic session. At the PCR Mission, the utilization of project facilities was estimated at around 80%. The required trained staff are in place, appointed either as regular or contract staff. More than 2,000 teachers received training in different fields, double the appraisal target. The demand for TVET programs has increased significantly recently due to (i) the new and improved workshop and lab facilities, (ii) market-driven technologies, (iii) diversity in skills training, and (iv) revised curricula and improved teaching practices. Enrollment increased at more than 20% annually on average over the past 5 years in the selected polytechnics, mainly due to the start of different income-earning short skills training program.

#### **D. Preliminary Assessment of Sustainability**

37. The Government's recurring budget for operation and maintenance (O&M) is the main source of sustainability of the project institutions. As discussed during the PCR Mission, the

provincial governments are committed to providing an adequate O&M budget for effective utilization of the project facilities, and they initiated the necessary actions with their finance departments to do so. The recurring budget for education, as percentage of the Government's total recurring budget, has increased from less than 1% 5 years ago to 1.5% in FY2004. The Government committed to increasing the recurring education budget for TVET programs from about 3% to 5% over the next 5 years. The Government's overall recurring budget has grown on average 22% annually over the past 5 years. In its national education policy and education sector reforms action plan (2001–2004), the Government committed to increasing budgetary allocations for the education sector from around 2% of the gross domestic product to 3%. In addition, the outlook for the Project's sustainability improved with the introduction of income-earning skills training programs by the institutions, the collaboration with the private sector led by the IMCs, and steps to establish an autonomous body, such as TEVTA in Punjab, in other provinces. The sustainability of the Project does not seem to be problem.

### **E. Environmental, Sociocultural, and Other Impacts**

38. The Project had no adverse environmental, sociocultural, and other impacts. Most of the project facilities were at existing locations, and the civil works at the new sites were at suitable locations that did not degrade the environment. Moreover, the Project introduced a new technology on environmental control, which will improve environmental measures. The Project increased women's access to skills training opportunities by improving the facilities of seven polytechnics for women, and establishing a new institution in Balochistan—the country's most conservative and underdeveloped province. Improved training facilities for women created greater awareness of skills training programs for self-employment and jobs among unemployed and poor women. Thus, the Project helped empower women to participate in economic activities, reducing poverty. The Project also contributed to positive institutional impacts by (i) building capacity for TVET sector planning and management through staff development; (ii) establishing R&D cells for labor market information and research; and (iii) establishing the IMCs, which has started to change the attitude of the polytechnics toward working closely with industries and the private sector.

## **IV. OVERALL ASSESSMENT AND RECOMMENDATIONS**

### **A. Overall Assessment**

39. Overall, the Project was rated successful.<sup>13</sup> The Project substantially achieved its objectives and completed the physical targets of improving the infrastructure of selected polytechnic institutions, training facilities, and quality components. Although some civil works were dropped, they were replaced with equipment for additional institutions, which enhanced the Project's benefits and physical achievements. The new technologies, curricula, instructional materials, and staff development programs were implemented satisfactorily. Private sector collaboration through the establishment of the IMCs in selected institutions also was promoted. As a result of interventions under the Project, the technical education system was reoriented towards improving its quality, skills diversity, and relevance to the labor market. However, the new graduates could take 2–3 years after they pass out of the improved training environment to demonstrate the quality impacts of such training. Project facilities are functional, except for some programs on new technologies, which were scheduled for the new academic session that starts September 2004. Staffing of the new facilities was arranged adequately on a regular or

<sup>13</sup> This PCR is part of a sample of PCRs independently reviewed by the Operations Evaluation Department. The Review has validated the methodology used and the rating given.

contract basis and through outsourcing, based on their particular needs. Some recruitment will be regularized in accordance with Government rules. Enrollment in some institutions declined due to the strict admission criteria introduced as a result of the IMCs involvement in management. However, the enrollment capacity increased by 3,777 (exceeding the appraisal target of 3,000) to 30,553 from 26,800 at appraisal (Appendix 10). With the full operation of improved facilities and new technologies, the annual output of graduates is expected to increase by 2,000 over the next 3–4 years (double the appraisal target of 1,000) to about 10,000.

## **B. Lessons Learned**

40. The Project was delayed for 2 years mainly due to inadequate staffing of the PIUs and frequent changes of project directors. During PRM's 2003 Country Portfolio Review Mission (CPRM), the Government agreed to establish a core project management unit at the fact-finding stage. This agreement should be enforced to provide a sense of ownership and minimize project implementation delays.

41. Recruitment of project staff is a generic problem. Delays were mainly due to ban on recruitment, even when the Project posts were approved, additional clearance from Finance Department was needed. PRM should raise this issue during CPRMs, and mission leaders should follow up at fact-finding. For effective utilization of project facilities by timely recruitment of staff, Government must allow exemption to project staff from the recruitment ban and waive additional clearances required from the Finance Department.

42. The frequent transfer of project directors is another generic problem. PRM should follow up consistently with Government on the CPRM agreements to retain project directors at least 3–4 years. ADB should be consulted before any changes are made.

43. Changing job markets and new technologies in TEVT require regular in-service training of teachers to upgrade their skills, as well as periodic curricula updating. The continued involvement of the private sector and strengthening the IMCs would be important to enhance ownership and relevance at all stages.

## **C. Recommendations**

### **1. Project Related**

#### **a. Future Monitoring**

44. The R&D cells should be staffed adequately and integrated with the provincial DTEs or other relevant agencies to strengthen the monitoring of key project benefits, utilization of facilities, student database, and labor market information.

#### **b. Covenants**

45. The revised service rules making B.Ed (Tech) an alternate qualification for the recruitment of junior instructors should be implemented consistently to promote entry-level qualifications of teachers and improve teacher quality.

**c. Further Action or Follow-Up**

46. PRM should follow up with the provincial departments of education in Sindh and Balochistan, Department of Industries, Labor and Manpower in NWFP, and the TEVTA in Punjab on (i) the recruitment of additional staff for the new technologies, and regularization of contractual staff for all project institutions by 31 December 2004; (ii) the staffing and integration of the R&D cells with the provincial DTEs or relevant departments by 31 October 2004; (iii) the full operation of the project facilities, such as the TTTC (replaced at GCT Khairpur), TTTC (Peshawar), one block of the Karimabad (Karachi) women polytechnic, and the student hostel in Swabi (NWFP) polytechnic by 31 December 2004; and (iv) the qualified audit opinion of the audit report for FY2003 on the Balochistan component for satisfactory settlement by 31 December 2004.

**d. Additional Assistance**

47. Taking into account the TEVT sector needs, ADB should consider future assistance for technical education with focus on priority areas, including support for short-duration skills training and technician-level training.

**e. Timing of the Project Performance Audit Report**

48. To conduct a meaningful evaluation for the Project's benefits and impacts, which should become clear over the next 2 years, the project performance audit report should be prepared in late 2006 or early 2007.

**2. General**

49. The recruitment system for teachers, which currently follows the procedures of the public service commission, needs to be made more efficient. Recruitment should be made competitive, with remuneration commensurate with qualifications and expertise, since the TEVT sector has a strong link with the private job market.

50. For more effective and coordinated development, the TEVT institutions need to be consolidated. The restructuring initiated through the creation of TEVTA in Punjab should be made more results-based. Other provinces should move forward in this direction without delay.

51. The selection of executing agencies and PIU's project management should be carefully examined at project formulation. Any capacity and additional support required for strengthening must be agreed with the Government and reflected in the project document, in accordance with ADB's report and recommendation of the President.

## PLANNED AND ACTUAL CIVIL WORKS

Planned Civil Works	Completed Civil Works
<b>A. Technical Teacher Training Facilities</b>	
<b>New</b>	
1. Government Technical Teacher Training Center, Peshawar, NWFP: Construction of academic block, library, workshop block, auditorium/audio visual room, main office, common room, dispensary, residences, student hostel, and bachelor hostel. Covered area = 31,551 square feet.	Completed as planned.
<b>Upgrading</b>	
2. National Institute of Science & Technical Education, Islamabad: Construction of labs, new offices boundary wall and modification for conversion of existing office into computer lab. Covered area = 11,876 square feet.	Completed as planned.
3. Government Technical Teacher Training College, Faisalabad, Punjab: Construction of electrical, mechanical/commercial, civil, and administrative blocks comprising 5 classrooms, 2 workshops, 8 laboratories, a drawing hall, examination hall, staff room, offices for principal, registrar, head of departments, main office, main store, rooms for instructors and stores. Covered area = 46,650 square feet.	Completed as planned.
4. Technical Teacher Training Institute, Sukkur, Sindh: Construction of building and hostel block. Covered area = 25,465 square feet.	Completed as planned.
5. Teacher Training Wing, Government College of Technology, Hyderabad, Sindh: Construction of additional block and external development. Covered area = 11,928 square feet.	Completed as planned.
6. Teacher Training Wing, Government College of Technology, Karachi, Sindh: Construction of additional block consisting of conference room, 4 class rooms, 3 offices, store, and external development. Covered area = 3,845 square feet.	Completed as planned.
7. Teacher Training Wing, Government College of Technology, Lahore, Punjab: Construction of buildings for Staff Academy. Covered area = 36,800 square feet.	Civil works dropped, under TEVTA's restructuring plan
<b>B. Polytechnic Institutions</b>	
<b>New</b>	
1. Government Polytechnic Institute for Women, Quetta, Balochistan: Construction of 6 classrooms, 6 workshops, administrative block, labs, library, general store, canteen, and hostel for 50 students. Covered area = 92,564 square feet.	Completed as planned.
2. Government Polytechnic Institute for Women, Federal B Area, Karachi, Sindh: Construction of 14 classrooms, 15 workshops, 11 stores, two science rooms, principal and staff offices, library, dispensary, auditorium, and canteen and common room for students. Covered area = 57,412 square feet.	Completed as planned.

*Continued on next page*

<b>Planned Civil Works</b>	<b>Completed Civil Works</b>
<b>Upgrading</b>	
3. Government Polytechnic Institute, Quetta, Balochistan: Construction of additional block for 3 new technologies, 2 classes and 2 workshops each for Air Conditioning & Refrigeration, Automotive, and Mining, and hostel for 200 students. Covered area = 78,204 square feet.	Completed as planned.
4. Government Polytechnic Institute, Nowshera, NWFP: Construction for expansion of machine shop, and multipurpose hall and office. Covered area = 1,682 square feet.	Completed as planned.
5. Government College of Technology, Peshawar, NWFP: Construction of 6 classrooms, B.Tech block, electronics workshop and stores. Covered area = 13,264 square feet.	Completed as planned.
6. Government Polytechnic Institute for Women, Peshawar, NWFP: Construction of 8 dormitories, warden room, dining room, kitchen, wash rooms, and guard room for 40 student hostel. Covered area = 8,974 square feet.	Completed as planned.
7. Government Polytechnic Institute, Swabi, NWFP: Construction of 4 classrooms, labs, 3 workshops, principal and staff offices, stores, and student hostel. Covered area = 22,803 square feet.	Completed as planned.
8. Government Polytechnic Institute, Timergara, NWFP: Construction of classrooms, labs, workshops for electrical technology, student hostel, and principal and staff residences. Covered area = 23,271 square feet.	Completed as planned.
9. Government Polytechnic Institute for Glass, Ceramics & Pottery Development Centre, Shahdara, Punjab: Construction of principal and staff offices, administrative block, library, and renovation/alteration of existing building. Covered area = 7,390 square feet.	Completed as planned.
10. Government College of Technology, Railway Road, Lahore, Punjab: Construction of 5 classrooms, 2 labs, 4 workshops, stores, and staff rooms. Covered area = 20,160 square feet.	Completed as planned.
11. Government Polytechnic Institute for Printing and Graphic Arts, Lahore, Punjab: Construction of 3 computer laboratories, library, 2 workshops, 2 classrooms, stores, and staff offices. Covered area = 11,050 square feet.	Completed as planned.
12. Government College of Technology, Raiwind Road, Lahore, Punjab: Improvement of Existing Facilities: Construction of 1 electronics lab, staff offices, store, and link passage. Covered area = 7,960 square feet. Computer Technology: 2 computer labs, store, 2 classrooms, and staff office or room. Covered area = 24,410 square feet. Environment & Biomedical Technologies: 5 labs, 1 classroom, 7 stores, and staff offices. Covered area = 67,400 square feet.	Completed as planned.
13. Government College of Technology, Faisalabad, Punjab: Construction of 4 classrooms, 3 labs, introduction of textile technology, stores, and staff rooms. Covered area = 32,100 square feet.	Completed as planned. In addition two additional classrooms were constructed.

	<b>Planned Civil Works</b>	<b>Completed Civil Works</b>
14.	Government Polytechnic Institute for Women, Faisalabad, Punjab: Construction of 4 classrooms, completion of existing incomplete building, library, and drawing hall. Covered area = 13,500 square feet.	Completed as planned.
15.	Swedish-Pak Institute of Technology, Gujrat, Punjab: Construction of 2 classrooms, 1 computer lab, 4 laboratories, workshops, stores, rooms for instructors, and conference room. Covered area = 20,290 square feet.	Completed as planned.
16.	Government College of Technology, Multan, Punjab: Construction of 5 classrooms, 5 laboratories, 2 drawing halls, workshop, store, and staff offices. Covered area = 28,400 square feet.	Completed as planned.
17.	Government Polytechnic Institute for Women, Multan, Punjab: Construction of 5 classrooms, comprehensive workshop, offices for head of department and accounts staff, and library. Covered area = 15,800 square feet.	Completed as planned.
18.	Government Polytechnic Institute, Layyah, Punjab: Construction of 4 additional classrooms, staff office, and link passage. Covered area = 5,040 square feet.	Completed as planned.
19.	Government College of Technology, Rasul, Punjab: Construction of 3 classrooms, laboratory, and restoration of campus sewerage system. Covered area = 2,940 square feet.	Classrooms completed as planned. In place of soil testing and hydraulic laboratory, a verandah for the classrooms was constructed.
20.	Government Polytechnic Institute, Sargodha, Punjab: Construction of multipurpose hall, 2 rooms, and bathroom. Covered area = 6,400 square feet.	Completed as planned.
21.	Government College of Technology, Sahiwal, Punjab: Construction of 6 additional classrooms, extension of library, and machine shop. Covered area = 14,206 square feet.	Completed as planned.
22.	Government College of Technology, Bahawalpur, Punjab: Constructions of 10 classrooms, 7 laboratories, staff rooms, stores, and library. Covered area = 49,398 square feet.	Completed as planned.
23.	Government Polytechnic Institute for Women, Bahawalpur, Punjab: Construction of functional buildings and facilities. Covered area = 26,970 square feet.	Civil works dropped as this was not considered priority by the EA.
24.	Government Institute of Technology, Rahim Yar Khan, Punjab: Construction of False Ceiling	Civil works dropped as this was not considered priority.
25.	Government College of Technology, Dera G. Khan, Punjab: Construction of Buildings.	Civil works dropped, because the institution was granted autonomy
26.	Government Polytechnic Institute, Sukkur, Sindh: Construction of administrative block, classrooms, electrical laboratory, library, and badminton hall. Covered area = 12,500 square feet.	Completed as planned.
27.	Government Saiffee Edizahni Institute of Technology, Nazimabad, Karachi, Sindh: Construction of additional block for telecommunication technology (2 classrooms, 1 workshop, 1 laboratory, 3 stores, staff room, and lavatory block). Covered area = 7,900 square feet.	Completed as planned.

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Planned Civil Works	Completed Civil Works
28. Government College of Technology, Karachi, Sindh: Construction of 12 classrooms, a lavatory block, and repair and renovation of staff colony, chemical, textile, civil, administrative, and sewerage and sanitary works. Covered area = 7,485 square feet.	Completed as planned.
29. Government Polytechnic Institute for Women, Korangi, Karachi, Sindh: Construction of 6 laboratories, 5 classrooms, 1 workshop, principal and staff rooms, stores, canteen, and administrative and accounts staff rooms. Covered area = 30,184 square feet.	Completed as planned.
30. Government College of Technology, Khairpur, Sindh: Construction of 3 classrooms and electronics laboratory. Covered area = 4,600 square feet.	Completed as planned.
31. Pak-Swedish Institute of Technology, Karachi, Sindh: Repair/renovation of mechanical, wood work, clothing and welding departments, and hostel block. Covered area = 34,751 square feet.	Completed as planned.
32. Government Polytechnic Institute, Jacobabad, Sindh: Construction of 5 classrooms and a computer laboratory. Covered area = 26,500 square feet.	Completed as planned.
33. Government Monotechnic Institute, Mithi, Sindh: Construction of mining laboratory, staff offices, 2 classrooms, 4 stores, and survey laboratory. Covered area = 7,586 square feet.	Completed as planned.
34. Government Habib College of Technology, Nawabshah, Sindh: Construction of 3 classrooms, 2 workshops, dining hall, and compound wall, including repair and renovation of academic block and water supply and sanitation system. Covered area = 8,650 square feet.	Completed as planned.
35. Government College of Technology, Hyderabad, Sindh: Construction of additional block for technical teachers wing, and repair and renovation of college building, and 4 classrooms, 4 halls, and staff offices. Covered area = 11,928 square feet.	Completed as planned.
<b>C. Other Facility</b>	
1. Construction of office of the Board of Technical Education, Peshawar, NWFP: Covered area = 18,292 square feet.	Completed as planned.

B.Tech = Bachelor in Technology, EA = Executing Agency, NWFP = North West Frontier Province, TEVTA = Technical Education & Vocational Training Authority  
Source: Federal and Provincial Project Implementation Units

## STAFF DEVELOPMENT PROGRAM

Subject Area	Target Groups	Person-Months											
		NWFP		Punjab		Balochistan		Sindh		Federal		Total	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	Appraisal	Actual
<b>A.</b>	<b>International</b>												
1. Teaching, Curriculum, and Training and Learning Resources (TLR) Development of New and Selected Technologies	GPI/GCT Heads Of Departments (HODs) and Senior Teachers												
Computer/Information Tech.				12.0	6.0	6.0	2.0					18.0	8.0
Electronic Publishing				6.0	4.0							6.0	4.0
Glass and Ceramics				12.0	4.0							12.0	4.0
Environmental Control				12.0	4.0							12.0	4.0
Automation Control				12.0	8.0							12.0	8.0
Textiles				6.0	4.0							6.0	4.0
Instrumentation				6.0	4.0							6.0	4.0
Sugar				3.0				3.0	0.0			6.0	0.0
B. Tech. Specializations				24.0	10.0							24.0	10.0
Printing and Graphics				12.0	4.0			4.0	0.0			16.0	4.0
Food Preservation Technology								6.0	0.0			6.0	0.0

Continued on next page

Subject Area	Target Groups	Person-Months											
		NWFP		Punjab		Balochistan		Sindh		Federal		Total	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	Appraisal	Actual
Telecommunications								8.0	2.0			8.0	2.0
Textile Dyeing and Printing								6.0	0.0			6.0	0.0
Petrochemicals								6.0	4.0			6.0	4.0
Computer Hardware & Software (repair and maintenance)								6.0	0.0			6.0	0.0
Chemical		6.0	4.0									6.0	4.0
Mining						12.0	0.0	6.0	0.0			18.0	0.0
Refrigeration and Airconditioning						12.0	0.0					12.0	0.0
Electronics		6.0	0.0			0.0	4.0					6.0	4.0
2. Curriculum, TLR, and Teaching Methods in New Technologies and B.Ed. (Tech.)	NISTE Faculty									18.0	6.0	18.0	6.0
3. Curriculum, TLR Development, and Teaching Methods in Technical Teacher Training	MOE/NISTE Staff/TTTC Teachers	6.0	4.0	24.0	10.0			12.0	10.0	12.0	5.0	54.0	29.0
4. Modern Curriculum Approaches	DTEs/(R&D)/ BTE/Staff	6.0	4.0	6.0	3.0	4.0	2.0	6.0	3.0	6.0	4.0	28.0	16.0
5. Labor Market Assessment and Skill Needs Identification	MOE/NISTE/DTEs (R&D Staff)	6.0	3.0	6.0	3.0	4.0	1.0	8.0	2.0	9.0	4.0	33.0	13.0

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Subject Area	Target Groups	Person-Months										Total	
		NWFP		Punjab		Balochistan		Sindh		Federal		Appraisal	Actual
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.		
6. Examination System Reform and Certification Practices in Technical Education	BTE Officials	3.0	1.0	3.0	1.0	3.0	2.0	3.0	2.0			12.0	6.0
7. Industrial Placement Techniques	Polytechnics/ DTEs (R&D Staff)	3.0	1.0	6.0	2.0	2.0	1.0	3.0	1.0		2.0	14.0	7.0
8. Research Methodology for Technical Education	MOE/NISTE/ BTE Staff	6.0	1.0	6.0	3.0	2.0	1.0	6.0	2.0	6.0	2.0	26.0	9.0
9. Conducting Tracer Studies	DTEs/R&D Staff/ NISTE/Polytechnic Staff	3.0	1.0	9.0	3.0	2.0	1.0	5.0	2.0	2.0	2.0	21.0	9.0
10. Staff Appraisal and Development Techniques	DTEs (R&D Staff)	4.0	1.0	5.0	2.0	4.0	1.0	4.0	3.0		1.0	17.0	8.0
11. Entrepreneurship/Micro-enterprise Development	NISTE/Polytechnic Staff	4.0	2.0	12.0	2.0	4.0	1.0	8.0	2.0	2.0	1.0	30.0	8.0
12. Benefit Monitoring and Evaluation	BME Staff	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	2.0	5.0	5.0
13. Management of Technical Teacher Education	NISTE/HODs/TTTC Principals/HODs	6.0	2.0	12.0	8.0	2.0	1.0	9.0	9.0	6.0	5.0	35.0	25.0
14. Planning and Management of Technical Education	MOE/DTEs/NISTE/ GPI/GCT Principals	8.0	4.5	12.0	3.0	2.0	1.0	9.0	4.0	2.0	2.0	33.0	14.5
15 TEVT Policy Analysis and	MOE/NISTE/DTEs	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	5.0	6.0

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Subject Area	Target Groups	Person-Months												
		NWFP		Punjab		Balochistan		Sindh		Federal		Total		
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	Appraisal	Actual	
Strategy Development														
16. Regional Study Tours in:														
a. Cost Recovery, TEVT Policy, Planning, and Coordination	MOE/NISTE/PED/DTE/BTE Officials	6.0	0.5	8.0	2.0	2.0	0.5	4.0	1.0	4.0	1.0	24.0	5.0	
b. Industry/Institution Links	MOE (S&TE Wing and P&D)/NISTE/DTE/GPI/GPIW Principals and Employers	12.0	1.5	18.0	2.0	3.0	1.0	8.0	1.0	4.0	2.0	45.0	7.5	
c. Entrepreneurship in Technical Education	MOE (S&TE Wing and P&D)/DTE/NISTE/GPI/GPIW Principals	2.0	0.7	2.0	0.7	2.0	0.7	2.0	0.7	2.0	1.4	10.0	4.2	
d. Promoting Private Sector Participation in TEVT	MOE (S&TE Wing and P&D)/DTE/NISTE/DTE/ Education Foundations	1.0	0.5	1.0	0.5	1.0	1.2	1.0	0.5	1.0	1.2	5.0	3.9	
e. Project Implementation Management	FIU/PIUs	1.0	0.7	1.0	0.7	1.0	0.7	5.0	5.0	1.0	1.4	9.0	8.5	
<b>Subtotal (International)</b>		<b>91.0</b>	<b>34.4</b>	<b>238.0</b>	<b>95.9</b>	<b>70.0</b>	<b>24.1</b>	<b>140.0</b>	<b>55.2</b>	<b>77.0</b>	<b>45.0</b>	<b>616.0</b>	<b>254.6</b>	

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Subject Area	Target Groups	Person-Months										Total		
		NWFP		Punjab		Balochistan		Sindh		Federal		Appraisal	Actual	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.			
<b>B.</b>	<b>Local</b>													
1. Teaching/Curriculum Design/ TLR Development														
Secretarial Technology	GPIW Teachers					12.0	41.1						12.0	41.1
Mining Technology	GPI Teachers					12.0	6.5						12.0	6.5
Civil/Mechanical/Electrical/ Electronics Technologies						0.0	8.4						0.0	8.4
Dress Design, Dressmaking, and Embroidery	GPIW Teachers					12.0	4.0						12.0	4.0
Refrigeration and Airconditioning	GPI Teachers					12.0	2.0						12.0	2.0
2. Content Updating/Industrial Experience	GPI/GCT/GPIW Teachers	40.0	156.5	200.0	925.0	20.0	33.4	150.0	300.0	30.0	30.8		440.0	1445.7
3. Pedagogical Training	GPI/GCT/GPIW- Islamabad Teachers	30.0	24.8	100.0	696.0	10.0	3.0	75.0	62.0	10.0			225.0	785.8
4. Curriculum Design/TLR Development/Teaching Methods	TTTC Teachers/ GPI/GPIW Senior Teachers	10.0	10.0	36.0	20.0	12.0	1.0	12.0	14.6	5.0			75.0	45.6
5. Diploma in Technical Education (1 year)	GPI/GCT/GPIW Teachers	54.0	88.0	540.0	156.0	36.0		360.0	650.0	36.0	60.0		1026.0	954.0

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Subject Area	Target Groups	Person-Months												
		NWFP		Punjab		Balochistan		Sindh		Federal		Total		
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	Appraisal	Actual	
<b>B.</b>	<b>Local</b>													
6. Technical Education Planning and Management/Institute Management	MOE/NITE/GPI/GPIW/GCT Principals/HODs	10.0	10.4	24.0	54.0	4.0	5.2	18.0	5.9	11.0	3.4	67.0	78.9	
<b>Subtotal (Local)</b>		<b>144.0</b>	<b>289.7</b>	<b>900.0</b>	<b>1851.0</b>	<b>130.0</b>	<b>104.6</b>	<b>615.0</b>	<b>1032.5</b>	<b>92.0</b>	<b>94.2</b>	<b>1881.0</b>	<b>3372.0</b>	
<b>Grand Total (A&amp;B)</b>		<b>235.0</b>	<b>324.1</b>	<b>1138.0</b>	<b>1946.9</b>	<b>200.0</b>	<b>128.7</b>	<b>755.0</b>	<b>1087.7</b>	<b>169.0</b>	<b>139.2</b>	<b>2497.0</b>	<b>3626.6</b>	

Act. = Actual, App. = Appraised, B.Ed. = Bachelors in Education, BME = Benefit Monitoring and Evaluation, BTE = Board of Technical Education, DTE = Department of Technical Education, FIU = Federal Implementation Unit, GCT = Government College of Technology, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, HOD = Head of Department, IMC = Institute Management Committee, MOE = Ministry of Education, MIS = Management Information System, NISTE = National Institute of Science & Technical Education, NITE = National Institute of Technical Education, PIU = Provincial Implementation Unit, R&D = Research and Development, S&TE = Science and Technical Education, tech. = technology, TEVT = Technical Education & Vocational Training, TLR = Training and Learning Resource, TTTC = Technical Teacher Training Center, TTW = Teacher Training Wing.

Notes:

<sup>a</sup> Refers to STVE Wing.

<sup>b</sup> In the case of Balochistan, the Directorate of Colleges.

<sup>c</sup> In the case of Balochistan, Board of Intermediate and Secondary Education.

<sup>d</sup> Of which 2 person-months are for the Manpower and Training Directorate in Sindh.

<sup>e</sup> Intended for Project R&D staff at the Directorate of Colleges.

<sup>f</sup> Of which 20 person-months are for NISTE faculty.

Source: Report and Recommendation of the President and Federal & Provincial Project Implementation Units

## INSTITUTIONS SUPPORTED

**Table A3.1: Polytechnics**

S. No.	Institute Name	Province	Assistance Provided
1	GPI, Quetta	Balochistan	Civil Works + Equipment + Furniture + Training
2	GPIW, Quetta	Balochistan	Civil Works + Equipment + Furniture + Training
3	GCT, Peshawar	NWFP	Civil Works + Equipment + Furniture + Training
4	GPI, Nowshera	NWFP	Civil Works + Equipment + Furniture + Training
5	GPIW, Peshawar	NWFP	Civil Works + Equipment + Furniture + Training
6	GPI, Swabi	NWFP	Civil Works + Equipment + Furniture + Training
7	GPI, Timergara, Dir	NWFP	Civil Works + Equipment + Furniture + Training
8	GPI, Bannu	NWFP	Equipment + Furniture + Training
9	GCT, Sahiwal	Punjab	Civil Works + Equipment + Furniture + Training
10	GPI, Layyah	Punjab	Civil Works + Equipment + Furniture + Training
11	GCT, Faisalabad	Punjab	Civil Works + Equipment + Furniture + Training
12	GPI Printing & Graphic Arts, Lahore	Punjab	Civil Works + Equipment + Furniture + Training
13	GCT, Railway Road, Lahore	Punjab	Civil Works + Equipment + Furniture + Training
14	GCT, Raiwind Road, Lahore	Punjab	Civil Works + Equipment + Furniture + Training
15	GCT, Rasul	Punjab	Civil Works + Equipment + Furniture + Training
16	PSIT, Gujrat	Punjab	Civil Works + Equipment + Furniture + Training
17	GCT, Multan	Punjab	Civil Works + Equipment + Furniture + Training
18	GCT, Bahawalpur	Punjab	Civil Works + Equipment + Furniture + Training
19	GPIW, Faisalabad	Punjab	Civil Works + Equipment + Furniture + Training
20	GPIW, Multan	Punjab	Civil Works + Equipment + Furniture + Training + Vehicle
21	GPI, Sargodha	Punjab	Civil Works + Equipment + Furniture + Training
22	GPI Glass & Ceramics, Lahore	Punjab	Civil Works + Equipment + Furniture + Training + Vehicle
23	GPIW, Lahore	Punjab	Equipment + Furniture + Training
24	GIT, Jhelum	Punjab	Equipment + Furniture + Training + Vehicle
25	GPI, Rahim Yar Khan	Punjab	Equipment + Furniture + Training + Vehicle
26	GIT, Gujranwala	Punjab	Equipment + Furniture + Training
27	GPI, Sialkot	Punjab	Equipment + Furniture + Training
28	GPIW, Bahawalpur	Punjab	Equipment + Furniture + Training
29	GCT, Karachi	Sindh	Civil Works + Equipment + Furniture + Training
30	GCT, Khairpur	Sindh	Civil Works + Equipment + Furniture + Training
31	Habib Inst. of Tech., Nawabshah	Sindh	Civil Works + Equipment + Furniture + Training
32	PSIT Landhi	Sindh	Civil Works + Equipment + Furniture + Training
33	GPIW, Karachi	Sindh	Civil Works + Equipment + Furniture + Training
34	GPI, Sukkur	Sindh	Civil Works + Equipment + Furniture + Training
35	GPI, Jacobabad	Sindh	Civil Works + Equipment + Furniture + Training
36	Saifee GIT, Karachi	Sindh	Civil Works + Equipment + Furniture + Training
37	GCT, Hyderabad	Sindh	Civil Works + Equipment + Furniture + Training
38	GPI Mithi (Mining Tech.)	Sindh	Civil Works + Equipment + Furniture + Training
39	GPIW, Korangi	Sindh	Civil Works + Equipment + Furniture + Training
40	GMI, Landhi	Sindh	Equipment + Furniture + Training
41	GPI, Badin	Sindh	Equipment + Furniture + Training
42	GMI, Khipro	Sindh	Equipment + Furniture + Training
43	GMI, Hala	Sindh	Equipment + Furniture + Training
44	GPIW, Sukkur	Sindh	Equipment + Furniture + Training

GCT = Government College of Technology, GIT = Government Institute of Technology, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, PSIT = Pakistan Swedish Institute of Technology.

Source: Provincial Project Implementation Units

**Table A3.2: Other Institutions Supported**

<b>Institute Name</b>	<b>Assistance Provided</b>
<b>North West Frontier Province</b>	
1 Board of Technical Education (BTE)	Civil Works + Equipment + Furniture + Training
2 GPI, Dera Ismail Khan	Computers + Furniture + Training
3 GPI, Haripur	Computers + Furniture + Training
4 GPI, Abbotabad	Computers + Furniture + Training
5 GPI, Swat	Computers + Furniture + Training
6 GPI, Manshera	Computers + Furniture + Training
7 GPI, Kohat	Computers + Furniture + Training
<b>Punjab</b>	
8 GPI, Dera Ghazi Khan	Equipment + Furniture + Training
9 Punjab BTE	Equipment + Furniture + Training
10 Punjab Education Foundation	Funds for assistance to Private Institutions
<b>Sindh</b>	
11 GMI, Ghari Yaseen	Computers + Furniture + Training
12 GMI, Pretabad, Hyderabad	Computers + Furniture + Training
13 GMI, Latifabad, Hyderabad	Computers + Furniture + Training
14 GMI, Matli	Computers + Furniture + Training
15 GMI, Mirpur Bathoro	Computers + Furniture + Training
16 GMI, Sehwan	Computers + Furniture + Training
17 GMI, Tando Mohammad Khan	Computers + Furniture + Training
18 GPI, Malir, Karachi	Computers + Furniture + Training
19 GPI, Dadu	Computers + Furniture + Training
20 GPI, Ghotki	Computers + Furniture + Training
21 GPIW, Hyderabad	Computers + Furniture + Training
22 GPI, Larkana	Computers + Furniture + Training
23 GPI, Lyari, Karachi	Computers + Furniture + Training
24 GPI, Matiari	Computers + Furniture + Training
25 GPI, Mehar	Computers + Furniture + Training
26 GPI, Mirpurkhas	Computers + Furniture + Training
27 GPI, Shikarpur	Computers + Furniture + Training
28 GPI, Sanghar	Computers + Furniture + Training
29 GPI, Thatta	Computers + Furniture + Training
30 Sindh BTE	Equipment + Furniture + Training
31 Sindh Education Foundation	Funds for assistance to Private Institutions

BTE = Board of Technical Education, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women.

Source: Provincial Project Implementation Units

**Table A3.3: Institutes and New Technologies**

S. No.	Institute Name	S. No.	Technology Introduced
1	GPI, Quetta, Balochistan	1	Air Conditioning & Refrigeration
		2	Automotive
		3	Mining
2	GPIW, Quetta, Balochistan	4	Computer Information
		5	Electronics
		6	Fashion Design
		7	Secretarial & Office Management
3	GPI, Swabi, NWFP	8	Computer Information
4	GPI, Timergara, Dir, NWFP	9	Electrical
5	GCT, Bahawalpur, Punjab	10	Computer Information
6	GCT, Faisalabad, Punjab	11	Textile (Dyeing & Finishing)
7	GCT, Raiwind Road, Lahore, Punjab	12	Biomedical
		13	Computer Information
		14	Environmental Control
8	GPI, (P&GA) Lahore, Punjab	15	Electronic Publishing
9	GPI, Shahdara, Lahore, Punjab	16	Glass & Ceramics
10*	GPIW, Multan, Punjab	17 <sup>a</sup>	Office Management
11	PSIT, Gujrat, Punjab	18	Automation
12	GMI, Hala, Sindh	19	Computer Information
13	GMI, Khipro, Sindh	20	Sugar
14	GMI, Landhi, Sindh	21	Textile Dyeing & Printing
15	GMI, Mithi, Sindh	22	Mining
16	GPI Badin, Sindh	23	Petroleum
17	GPIW, Karimabad, Karachi, Sindh	24	Food Preservation
18	GPIW, Korangi, Karachi, Sindh	25	Garment
		26	Secretarial
19	GPIW, Sukkur, Sindh	27	Electronics
		28	Secretarial
20	Saifee GIT, Karachi, Sindh	29	Telecommunication
21	PSIT, Landhi, Karachi, Sindh	30	Printing & Graphic Arts

GCT = Government College of Technology, GIT = Government Institute of Technology, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, NWFP = North West Frontier Province, P&GA = Printing and Graphic Arts, PSIT = Pakistan Swedish Institute of Technology.

<sup>a</sup> One-year course of Diploma in Office Management introduced under the Project at GPIW, Multan, Punjab.  
Source: Provincial Project Implementation Units

Table A3.4: Computer Labs

S. No.	Institute Name	# of Labs	S. No.	Institute Name	# of Labs
1	NISTE, Islamabad	2			
	<b>NWFP</b>			<b>Balochistan</b>	
2	GCT, Peshawar	3	36	GPI, Quetta	1
3	GPI, Nowshera	1	37	GPIW, Quetta	2
4	GPIW, Peshawar	2		<b>Sindh</b>	
5	TTTC, Peshawar,	1	38	GCT, Karachi	2
6	GPI, Dera Ismail Khan	2	39	GCT, Khairpur	2
7	GPI, Haripur	2	40	Habib GIT, Nawabshah	2
8	GPI, Abbotabad	1	41	PSIT Landhi	2
9	GPI, Swat	1	42	GPIW, Karachi	2
10	GPI, Mansehra	1	43	GPI, Sukkur	2
11	GPI, Swabi	3	44	GPI, Jacobabad	1
12	GPI, Timergara, Dir	1	45	Saifee GIT, Karachi	2
13	GPI, Kohat	1	46	GCT, Hyderabad	2
14	GPI, Bannu	1	47	GPIW, Sukkur	1
	<b>Punjab</b>		48	GPIW, Korangi	1
15	GCT, Sahiwal	2	49	GMI, Hala	1
16	GPI, Layyah	1	50	GMI, Badin	1
17	GCT, Faisalabad	2	51	GMI, Khipro	1
18	GPI P&GA, Lahore	1	52	GMI, Ghari Yaseen	1
19	GCT, Railway Road, Lahore	2	53	GMI, Pretabad, Hyderabad	1
20	GCT, Raiwind Road, Lahore	2	54	GMI, Latifabad, Hyderabad	1
21	GCT, Rasul	2	55	GMI, Matli	1
22	PSIT, Gujrat	1	56	GMI, Mirpur Bathoro	1
23	GCT, Multan	3	57	GMI, Sehwan	1
24	GCT, Bahawalpur	2	58	GMI, Tando Mohd. Khan	1
25	GPIW, Faisalabad	1	59	GPI, Malir, Karachi	1
26	GPIW, Multan	1	60	GPI, Dadu	2
27	GPI, Sargodha	2	61	GPI, Ghotki	1
28	GIT, Dera Ghazi Khan	1	62	GPIW, Hyderabad	1
29	GPIW, Lahore	1	63	GPI, Larkana	1
30	GIT, Jhelum	1	64	GPI, Lyari, Karachi	2
31	GPI, Rahim Yar Khan	1	65	GPI, Matiari	1
32	GIT, Gujranwala	1	66	GPI, Mehar	1
33	GPI, Sialkot	2	67	GPI, Mirpurkhas	1
34	TTTC, Faisalabad	1	68	GPI, Shikarpur	1
35	TTW, GCT Lahore	1	69	GPI, Sanghar	1
			70	GPI, Thatta	1

GCT = Government College of Technology, GIT = Government Institute of Technology, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, NISTE = National Institute of Science & Technical Education, NWFP = North West Frontier Province, P&GA = Printing and Graphic Arts, PSIT = Pakistan Swedish Institute of Technology, TTTC = Technical Teacher Training Center, TTW = Teacher Training Wing

Source: Federal and Provincial Project Implementation Units

## DISCUSSIONS WITH PRIVATE SECTOR AND INDUSTRIALISTS

1. The Project Completion Review (PCR) Mission held focus groups with selected private sector representatives, Institute Management Committee (IMC) members, and industrialists in the four provinces that participated in the Project. Their views about the polytechnic institutions and graduates are summarized in this appendix. The consensus was that the quality of technical education directly affects the level of responsibility, enlightenment, and skills of workers. The alignment of the education and training sector with the skills requirements of industry was seen as vital to sustaining Pakistan's economic growth. However, the focus group participants considered the education and training sector inefficient at this stage. Moreover, the sector's governance, structure, courses, and systems were viewed as irrelevant to labor market demands.

2. **Balochistan.** The initiative to establish links with the private sector through the IMC was a well intended, but it never took off properly. Government polytechnics could not perform their jobs as expected due to a lack of qualified teachers and inadequate recurring budget support. Their graduates lacked industrial exposure and possessed few practical skills mainly due to the limited industrial base of the province. The quality of the technical education system has not kept pace with industry demands. Although Balochistan has an undeveloped industrial base, the focus group participants expected the skilled graduates to get jobs.

3. **North West Frontier Province.** The private sector and IMC representatives expressed nearly similar views that a diploma or degree only counts to a certain extent. Employers look at the quality and skills of people. Polytechnic institutes cater mainly to people from low-income and rural backgrounds who are looking to acquire skills that can get them jobs. However, the teachers generally lack dedication and commitment, and do not care about quality and job markets for the graduates. Consequently, the graduates have a nonprofessional approach and low productivity, and cannot contribute positively. However, one industrialist who chaired the IMC at GCT (Peshawar) was hopeful that graduates could do much better work if the institutions had good leadership and principals were willing to collaborate with the private sector and industrialists. For example, he said, GCT (Peshawar) graduates have good job opportunities in the private sector in different locations, including within the province, where industrial development is significantly behind Punjab and Sindh.

4. **Punjab.** A large number of technical institutes cater to different technologies and specializations. Historically, graduates of some of these institutions enjoyed good reputation, which also was reflected in comments from the private sector employers, who generally had a mixed view of technical education and vocational training (TEVT) graduates. While they praised graduates of certain technologies and institutes, they felt the quality of technical education as a whole needed improvement. In the view of the private sector employers, this could be achieved through better teachers, upgraded training options, curriculum and textbook reforms, and competency-based examination system. They also identified a need for short courses on relevant theories for apprentices trained on the job in industry. Moreover, they believed that uniform criteria should be used for evaluating and determining training programs offered in different institutes. Finally, they emphasized the need for legislation to ensure continuing collaboration between institutions and industry, and for incentives to industries—such as tax rebates—that help institutions.

5. **Sindh.** The IMC and private sector employers agreed that much needs to be done to improve the quality of technical graduates. They were not satisfied with the theory content and skill levels of the output of polytechnics and vocational institutes. They expected technicians and

polytechnic graduates to be able to produce, assemble, or install with perfection, precision, and in conformance with ISO standards of inspection techniques. The participants felt that productivity would be enhanced greatly by making technical and vocational education demand-driven rather than supply-based. By stressing accuracy, perfection, and professionalism as work habits, and revising course contents, the gap between demand and supply could be reduced substantially. Moreover, institutes and industries need to interact constantly with the aim of producing quality manpower that meets industry needs.

6. If Government institutions produce the quality graduates needed in different fields, they would be more in demand in the job markets than their counterparts in private institutions or training centers, according to the private sector representatives. Private institutions or training centers do not have the modern equipment and workshop facilities to provide similar or equivalent technician training. However, comparisons between the public and private institutions is difficult at this stage. In addition to unequal training facilities and skills levels, the private institutions are new in the field and concentrate mainly on short courses and training for technicians. In addition, their graduates normally do not compete with those from public institutions based on skills levels and standards.

7. The private sector representatives concluded that quality and relevance are the weakest links in TEVT. The reasons for this include (i) the relevance of courses, (ii) students with the right aptitude and attitude, (iii) skills and motivation of teachers to deliver quality teaching, (iv) the effective use of teaching-learning resources, (v) the appropriateness of equipment, (vi) efficient management, (vii) required staff, and (viii) budget support. These are important individually and collectively. Industry also needs certain non-technical competencies, such as work ethics, safety consciousness, quality mindedness, cooperation, and integrity. To become a potent force for economic growth and poverty reduction, and to cater to industry requirements and efficient investment, the TEVT system needs to be transformed. Otherwise, if private industries believe education and training are not providing them with the required skills, they will go their own way. That would not only harm both sectors—private and the training—but also the economy and the people.

**PROJECT COST**  
(\$ million)

Item	Appraisal Estimate									Actual									
	Bank			GOVT			Total Cost			Bank			GOVT			Total Cost			
	FC	LC	Total	FC	LC	Total	FC	LC	Total	FC	LC	Total	FC	LC	Total	FC	LC	Total	
<b>A. Investment Costs</b>																			
1. Civil Works	5.9	4.4	10.3	0.0	4.4	4.4	5.9	8.9	14.8	3.3	2.8	6.1	0.0	3.6	3.6	3.3	6.4	9.6	
2. Furniture, Equipment, Vehicles, and Instructional Materials	31.1	5.4	36.5	0.0	0.0	0.0	31.1	5.4	36.5	16.7	2.6	19.3	0.0	2.3	2.3	16.7	4.9	21.6	
3. Land	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	
4. Staff Development																			
a. Staff Development-Foreign	2.2	0.2	2.4	0.0	0.0	0.0	2.2	0.2	2.4	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0	
b. Staff Development-Local	0.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.4	0.4	
<b>Subtotal (4)</b>	<b>2.2</b>	<b>1.2</b>	<b>3.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.2</b>	<b>1.2</b>	<b>3.4</b>	<b>2.0</b>	<b>0.4</b>	<b>2.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>	<b>0.4</b>	<b>2.5</b>	
5. Consultants																			
a. Consultants-International	4.0	0.0	4.0	0.0	0.0	0.0	4.0	0.0	4.0	3.1	0.0	3.1	0.0	0.0	0.0	3.1	0.0	3.1	
b. Consultants-Domestic	0.0	2.4	2.4	0.0	0.0	0.0	0.0	2.4	2.4	0.0	2.3	2.3	0.0	0.0	0.0	0.0	2.3	2.3	
<b>Subtotal (5)</b>	<b>4</b>	<b>2.4</b>	<b>6.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>4.0</b>	<b>2.4</b>	<b>6.4</b>	<b>3.1</b>	<b>2.3</b>	<b>5.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.1</b>	<b>2.3</b>	<b>5.4</b>	
<b>Total (A)</b>	<b>43.2</b>	<b>13.4</b>	<b>56.6</b>	<b>0.0</b>	<b>4.7</b>	<b>4.7</b>	<b>43.2</b>	<b>18.2</b>	<b>61.4</b>	<b>25.1</b>	<b>8.1</b>	<b>33.1</b>	<b>0.0</b>	<b>6.1</b>	<b>6.1</b>	<b>25.1</b>	<b>14.1</b>	<b>39.2</b>	
<b>B. Incremental Recurrent Costs</b>	<b>0.0</b>	<b>1.5</b>	<b>1.5</b>	<b>0.0</b>	<b>7.6</b>	<b>7.6</b>	<b>0.0</b>	<b>9.1</b>	<b>9.1</b>	<b>0.0</b>	<b>0.6</b>	<b>0.6</b>	<b>0.0</b>	<b>1.0</b>	<b>1.0</b>	<b>0.0</b>	<b>1.6</b>	<b>1.6</b>	
<b>C. Taxes and Duties</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>5.8</b>	<b>5.8</b>	<b>0.0</b>	<b>5.8</b>	<b>5.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.2</b>	<b>1.2</b>	<b>0.0</b>	<b>1.2</b>	<b>1.2</b>	
<b>D. Service Charge</b>	<b>1.8</b>	<b>0.0</b>	<b>1.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.8</b>	<b>0.0</b>	<b>1.8</b>	<b>1.2</b>	<b>0.0</b>	<b>1.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.2</b>	<b>0.0</b>	<b>1.2</b>	
<b>E. Imprest Account</b>										<b>1.9</b>	<b>0.0</b>	<b>1.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.9</b>	<b>0.0</b>	<b>1.9</b>	
<b>Grand Total (A+B+C+D)</b>	<b>45.0</b>	<b>14.9</b>	<b>59.9</b>	<b>0.0</b>	<b>18.1</b>	<b>18.1</b>	<b>45.0</b>	<b>33.1</b>	<b>78.1</b>	<b>28.0</b>	<b>8.4</b>	<b>36.9</b>	<b>0.0</b>	<b>7.8</b>	<b>7.8</b>	<b>28.0</b>	<b>16.3</b>	<b>45.1</b>	

GOVT = Government of Pakistan, FC = foreign currency, LC = local currency.

Source: Report and Recommendation of the President, Loan Financial Information System and Federal & Provincial Project Implementation Units

**YEARLY CONTRACT AWARDS AND DISBURSEMENT**  
(\$ million)

Year	Quarter	Contract Awards		Disbursement	
		Projected	Actual	Projected	Actual
1996	I	0.00	0.00	0.00	0.00
	II	0.00	0.00	0.00	0.00
	III	0.00	0.00	3.00	2.44
	IV	0.30	0.00	0.00	0.33
1997	I	5.61	5.80	1.37	1.28
	II	1.09	0.00	0.68	0.35
	III	1.57	0.97	0.87	0.14
	IV	1.91	1.21	1.10	0.84
1998	I	2.00	0.72	0.50	0.00
	II	3.70	1.50	1.45	0.07
	III	2.40	0.52	2.40	0.46
	IV	1.40	2.38	2.15	5.76
1999	I	1.74	0.51	1.25	0.37
	II	1.91	0.25	1.75	0.37
	III	2.15	1.41	1.25	0.41
	IV	1.85	0.33	1.75	1.27
2000	I	1.07	0.44	0.57	0.58
	II	1.05	1.04	0.97	1.19
	III	1.98	0.32	1.93	0.89
	IV	3.10	0.13	2.40	1.17
2001	I	2.30	0.06	1.63	0.73
	II	3.40	2.29	2.20	0.62
	III	2.40	0.56	2.70	0.32
	IV	1.80	0.79	2.50	1.77
2002	I	2.50	1.64	1.00	0.61
	II	2.50	2.05	1.50	1.23
	III	1.50	2.09	2.00	1.33
	IV	1.00	1.63	2.50	1.75
2003	I	2.10	3.61	1.20	1.77
	II	2.10	2.05	1.60	1.22
	III	0.80	1.62	2.90	1.62
	IV	0.00	0.52	0.30	2.12
2004	I	1.60	1.75	3.00	1.58
	II	0.00	0.13	0.00	1.57
	III	0.00	0.00	0.00	0.57
	IV	0.00	0.00	0.00	0.26
	<b>Total</b>		<b>38.37</b>		<b>36.96</b>

Source: Loan Financial Information System



## STATUS OF COMPLIANCE WITH LOAN COVENANTS

<b>Covenant</b>	<b>Reference in Loan Agreement</b>	<b>Status of Compliance</b>
<b>Particular Covenants</b>	Article – IV	
The Borrower shall make available, promptly as needed, the funds, facilities, services, land, and other resources that are required in addition to the proceeds of the loan.	Section 4.02	Complied with.
The Borrower shall cause competent and qualified consultants and contractors, acceptable to the Borrower and the Asian Development Bank (ADB), to be employed to an extent and upon terms and conditions satisfactory to the Borrower and ADB.	Section 4.03(a)	Complied with.
The Borrower shall cause the Project to be carried out in accordance with plans, design standards, specifications, work schedules, and construction methods acceptable to the Borrower and ADB.	Section 4.03(b)	Complied with.
The Borrower shall make arrangements satisfactory to ADB for insurance of the project facilities to such extent and against such risks and in such amounts as shall be consistent with sound practice.	Section 4.05(a)	Complied with.
The Borrower shall maintain, or cause to be maintained, records and accounts adequate to identify the goods and services and other items of expenditure financed out of the proceeds of the loan.	Section 4.06(a)	Complied with.
The Borrower shall, acting through the Federal Implementing Unit (FIU), and shall cause each Provincial Implementing Unit (PIU) to (i) maintain, or cause to be maintained, separate accounts for the Project; (ii) have such accounts and related financial statements audited annually, in accordance with sound editing standards, by auditors acceptable to ADB; (iii) furnish to ADB, as soon as available but in any event not later than 12 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the report of the auditors relating thereto, all in the English language; and (iv) furnish to ADB such other information concerning such accounts and financial statements and the audit thereof as ADB shall from time to time reasonably request.	Section 4.06(b)	Complied with.
The Borrower shall furnish and cause each province, or cause to be furnished, to ADB quarterly reports on the carrying out of the project facilities in such form and in such detail and within such a period, as ADB shall reasonably request.	Section 4.07(b)	Complied with.
Promptly after physical completion of the Project, but	Section	Complied with.

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Covenant	Reference in Loan Agreement	Status of Compliance
in any event not later than 3 months thereafter, or such later date as may be agreed for this purpose between the Borrower and ADB, the Borrower shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by the Borrower of its obligations under the Loan Agreement and the accomplishment of the purposes of the loan.	4.07(c)	
<b>Federal Implementing Unit:</b> Before the Effective Date, the Ministry of Education (MOE) shall establish an FIU and shall designate the joint educational advisor (JEA) of the Science, Technical & Vocational Education (STVE) as the FIU project director to head the FIU and appoint core staff consisting of a full-time FIU project manager, a monitoring and evaluation officer, a procurement officer, an accounts officer, and a training and staff development officer.	Schedule 6 Para. 3(a)	Complied with.
<b>Project Implementing Units:</b> Before the Effective Date each province shall establish a PIU within its PED and shall appoint, on a full-time basis, a PIU project director to head the PIU and core staff consisting of a PIU project manager in Sindh, and a PIU deputy director in Balochistan, North West Frontier Province (NWFP), and Punjab; and a procurement officer; an accounts officer; and a monitoring and evaluation officer for the PIU in each province. The director of the Department of Technical Education (DTE) in Sindh shall serve as the PIU director in that province and shall report directly to the secretary of Provincial Education Department (PED).	Schedule 6, Para. 4	Complied with, though adequate staffing was delayed. The director of the DTE in Sindh initially was appointed as the PIU director, but the government subsequently appointed a fulltime project director of the PIU as per the government rules.
<b>National Steering Committees (NSC):</b> Before the Effective Date, the Borrower shall establish a NSC to provide guidance to the PED of each province and to make policy decisions as appropriate. The secretary of MOE shall be the chairman of the NSC and the FIU project director shall be the secretary of the NSC. The member of the NSC shall also include representatives of the concerned ministries and offices and/or agencies.	Schedule 6, Para. 9	Complied with.
The NSC shall meet as often as required, but at least once every 3 months.	Schedule 6 Para. 10	Complied with.
<b>Provincial Coordinating Committees:</b> Within 3 months of the Effective Date, each province shall organize with its PED a provincial coordinating committee (PCC) to coordinate and oversee all project activities in the province under the supervision of the	Schedule 6 Para. 11	Complied with.

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Covenant	Reference in Loan Agreement	Status of Compliance
<p>PIU director. Each PCC shall be chaired by the secretary of PED in each province, and the PIU project director shall be the member-secretary to each such PCC. Each PCC shall meet quarterly to review progress of the project, and special sessions may be scheduled as necessary to consider and advise on the progress and problems of project implementation in each province.</p>		
<p><b>Policy Matters</b></p>		
<p><b>Staff Development Program:</b> Within 3 months of the Effective Date, MOE shall furnish to ADB for approval a detailed and comprehensive program for external training.</p>	Schedule 6, Para. 13(a)	Complied with.
<p>Each province shall, in coordination with MOE, be responsible for the administration of the fellowship program to be carried out in its province and in National Institute of Science &amp; Technical Education (NISTE). Each PIU shall, in consultation with the PCC, select candidates for fellowships and propose the institutions, courses, and duration of study.</p>	Schedule 6, Para. 13(b)	Complied with.
<p>Prior to the award of overseas fellowships, the FIU shall consult with ADB concerning the candidates for such fellowships and seek the approval of ADB.</p>	Schedule 6, Para. 13(d)	Complied with.
<p><b>Curriculum Development and Reform:</b> The Borrower, acting through MOE, shall: (i) periodically review the Diploma in Associate Engineering (DAE) curricula in the various technology fields to ensure that they are relevant to the Borrower's needs; and (ii) development curricula for new technology programs.</p>	Schedule 6, Para. 14(a)	Complied with.
<p>By July 1997, MOE shall develop guidelines and the PED shall revise service rules for the introduction of the in-service higher diploma in teacher education as a qualification for the promotion of junior instructors to instructors. Also by July 1997, the pre-service Bachelor in Education (Technology) shall be established as an alternate qualification for the recruitment of junior instructors. MOE, in consultation with the PEDs, shall develop and introduce the programs for in-service Bachelor in Education (Technology) by FY1998.</p>	Schedule 6, Para. 14(b)	Partially complied with. Punjab approved the revised service rules and notified the concerned authorities. Balochistan, NWFP, and Sindh initiated the process of approval of the revised service rules and notification.
<p><b>Teaching and Administrative Staff:</b> The Borrower shall ensure that the project institutions have an adequate number of qualified teaching and non-teaching staff; and that staff are recruited to fill vacancies in Government Technical Institutes (GTIs), GCTs, and NISTE, and that new positions in these institutions. By July 1996, the Borrower shall ensure</p>	Schedule 6, Para. 15(a)	Partially complied with. Additional staff were appointed, but shortages continued partly due to resignation for better opportunities, and the lack of qualified candidates. Recruitment is ongoing to staff

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Covenant	Reference in Loan Agreement	Status of Compliance
that the service rules are amended in Punjab to enable the recruitment of holders of DAE as junior instructors in the technical institutes.		project facilities adequately. However, the Government also arranged outsourcing staff or hiring on contracts in some cases.
<p>The Borrower shall ensure that the MOE and each province provide staff, services, facilities, and other resources required for the adequate and timely maintenance of project facilities during and beyond the implementation period. Specifically, the Borrower shall create agreed upon additional posts of teachers in NISTE within 1 year of the Effective Date, and appoint staff and trainers in time for the startup of the proposed new pre- and in-service teacher training programs in the following year. Within 6 months of the Effective Date, the Borrower shall ensure that each province recruits at least 85% of the essential, sanctioned posts of teachers remaining vacant in each of the teaching departments of GTIs and GCTs. To ensure that project institutions are staffed adequately, the Borrower and each province shall, within 1 year of the Effective Date, furnish ADB with review reports indicating staff positions and appointments for each such institution.</p>	Schedule 6, Para. 15(b)	Partially complied with. Additional posts were created, though they could not be filled initially due to ban on recruitment and a lack of suitably qualified candidates. The situation was different in Balochistan, where they needed to change service rules to facilitate hiring of teachers from other provinces. Recruitment is ongoing to staff project facilities adequately. However, the Government also arranged outsourcing staff or hiring with contracts in some cases.
<b>Financial Matters</b>		
<p>The Borrower shall ensure (i) that within 6 months of the Effective Date, ADB receives a report indicating the Project has been incorporated in the Borrower's Core Investment Program and that starting FY1997, budgetary allocations for the Project will be, made in the Annual Development Program; (ii) that within 6 months of the Effective Date, ADB is furnished with a copy of a detailed cost plan for the Project, acceptable to ADB for 1996–2002; (iii) that a draft project operations and financing plan, indicating costs and sources of funds to pay for project operation and maintenance (O&amp;M), is furnished to ADB during annual supervision missions before finalizing the Borrower's and each province's annual budget proposal; and (iv) that annual project operating costs are transferred gradually to the revenue budget in increasing amounts during project implementation and entirely upon project completion.</p>	Schedule 6, Para. 16(a)	Complied with.
<p>The Borrower and each province shall make adequate budgetary allocations in their respective budgets from the Annual Development Program for the Project for each fiscal year for the timely and effective implementation of the Project. For this purpose, before 15 May of each fiscal year, the Borrower and each province shall provide ADB for review a draft financing plan for the Project.</p>	Schedule 6, Para. 16(b)	Complied with.

Continued on next page

Covenant	Reference in Loan Agreement	Status of Compliance
The Borrower and each province shall take suitable measures to implement a maintenance program for project facilities. For this purpose, the Borrower and each province shall make adequate allocations in their respective budgets for each fiscal year starting in FY1996 to meet incremental recurrent costs for the O&M of the project facilities.	Schedule 6, Para. 17	Complied with, though recurring budget allocation was not adequate. However the Government committed to increase the allocation for O&M.
Except as ADB otherwise agrees, the Borrower shall ensure that tuition fees for the school year 1996/97 and thereafter are increased at rates not less than as follows: (i) in Balochistan, Rs7.00 per month to Rs120.00 per month by FY1999; (ii) in NWFP, 100% increase in FY1997, and 90% in FY1998 and in FY1999; (iii) in Punjab, 20% increase each year for 6 consecutive years, starting FY1997; and (iv) in Sindh, 50% in FY1997, and another 50% in FY1999.	Schedule 6, Para. 18	Complied with, except in Punjab where the last 20% increase is planned for implementation during the next academic session.
The Borrower shall encourage the private sector to set up training institutions and provide incentives through education foundations in Punjab and Sindh, and to give emphasis to work in the rural areas and in less privileged urban centers with priority for the establishment of educational institutions for women.	Schedule 6, Para. 19	Complied with.
During project implementation and pursuant to the Borrower's standard procedures acceptable to ADB, the Borrower shall loan an amount equivalent to 1 million dollars to each such education foundation to upgrade facilities, update equipment, train teachers, and improve libraries of selected institutions. Each such loan shall be channeled to private, non-stock, non-profit, technical institutes accredited by the Boards of Technical Education according to the Borrower's procedures.	Schedule 6, Para. 20	Complied with, but due to lack of proper response for loan funds from the private sector, the amount was not fully utilized. Funds were not managed efficiently by the foundations due to inexperience.
The Borrower shall initiate agreed upon steps towards increasing the financial as well as technical autonomy and enable and facilitate the placement of selected colleges and institutes under autonomous bodies. Within 6 months of the Effective Date, the competent authority in each province shall submit a proposal to the provincial cabinet to make selected GTIs and GTCs autonomous.	Schedule 6, Para. 21	Partially complied with. All institutes in Punjab were placed under a new autonomous body, Technical Education and Vocational Training Authority (TEVTA). Other provinces are considering following the TEVTA model.
Each province shall establish an institutionalized replacement arrangement to provide temporary replacements for teachers undertaking in-service training programs. Each province shall continue a policy dialogue during project implementation to ensure that measures being taken are adequate to address identified problems.	Schedule 6, Para. 22	Partially complied with, as no formal replacement arrangement was put in place. However, classes were undertaken by the fellow teachers.

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Covenant	Reference in Loan Agreement	Status of Compliance
<b>Other Matters</b>		
<p>Within 3 months of the Effective Date, the FIU and the PIUs shall collect and compile such data as may be required to establish baseline indicators for appropriate educational, social, and economic factors to monitor and evaluate the Project during implementation and upon completion. The FIU and PIUs shall obtain such data at the start of project implementation to establish a baseline.</p>	<p>Schedule 6, Para. 23(a)</p>	<p>Not complied with.</p>
<p>MOE shall consolidate baseline data, collect additional data, and establish a set of realistic and measurable targets that reflect the anticipated project benefits as agreed between the Borrower and ADB. The PIU shall include an M&amp;E officer to design and install an operational system for M&amp;E benefits, improve management information, and assess the impact of the Project on the improvement of the technical institutes system in each province.</p>	<p>Schedule 6, Para. 23(b)</p>	<p>Not complied with.</p>
<p>Except as the Borrower and ADB otherwise agree, representatives of MOE, the PEDs, and ADB shall carry out a mid-term review in the third year of project implementation in accordance with a schedule and terms of reference to be agreed between the Borrower and ADB.</p>	<p>Schedule 6, Para. 24</p>	<p>Complied with.</p>

## CONSULTING SERVICES

Subject Area	Target Organizations	Person-Months											
		NWFP		Punjab		Balochistan		Sindh		Federal		Total	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.
<b>A. International</b>													
<b>"Common" Administered by Federal Component</b>													
1 Teaching of Computer/Information Technology	GCT/GPIW, Quetta/NISTE	2.0	2.5	8.0	8.0	2.0	1.0	8.0	7.0	4.0	5.0	24.0	23.5
2 Teaching of Biomedics	GCT/GPI			3.0	9.0			3.0	3.0			6.0	12.0
3 Curriculum Development for B.Ed. (Tech)	NISTE/TTTCs			1.0	1.0			1.0	1.0	10.0	10.0	12.0	12.0
4 Industry/Institute Linkages	MOE/NISTE/DTEs	4.0	5.0	12.0	13.0	4.0	4.5	9.0	8.5	3.0	7.0	32.0	38.0
5 Cost Recovery/Financing Technical Education	MOE/DTEs/NISTE	2.0	2.0	6.0	7.5	2.0	2.0	6.0	3.0	3.0	4.0	19.0	18.5
6 Entrepreneurship/Microenterprise Development	MOE/DTEs/NISTE	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	10.0	10.5
7 TEVT Policy Analysis and Strategy Development	MOE/DTEs/NISTE	2.0	2.0	2.0	1.0	2.0	0.0	2.0	1.0	4.0	4.5	12.0	8.5
	<b>Subtotal (Common)</b>	<b>12.0</b>	<b>13.5</b>	<b>34.0</b>	<b>41.5</b>	<b>12.0</b>	<b>9.5</b>	<b>31.0</b>	<b>25.5</b>	<b>26.0</b>	<b>33.0</b>	<b>115.0</b>	<b>123.0</b>

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Subject Area	Target Organizations	Person-Months											
		NWFP		Punjab		Balochistan		Sindh		Federal		Total	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.
<b>"Province-Specific" Administered by Each Province</b>													
8 Teaching of Food Preservation Technology.	GPIW							12.0	12.0			12.0	12.0
9 Teaching of Automation Control.	PSIT, Gujrat			18.0	18.0							18.0	18.0
10 Teaching of Environmental Technology	GCT, Rasul			18.0	18.0							18.0	18.0
11 Teaching of Mining Technology	GPI, Quetta					6.0	6.0					6.0	6.0
12 Teaching of Refrigeration and Air Conditioning	GPI, Quetta					12.0	12.0					12.0	12.0
13 Teaching of Printing Technology	GPI, P&GA			12.0	6.0							12.0	6.0
14 Occupational Safety and Health	NISTE									4.0	4.0	4.0	4.0
<b>Subtotal (Province-specific)</b>		<b>0.0</b>	<b>0.0</b>	<b>48.0</b>	<b>42.0</b>	<b>18.0</b>	<b>18.0</b>	<b>12.0</b>	<b>12.0</b>	<b>4.0</b>	<b>4.0</b>	<b>82.0</b>	<b>76.0</b>
<b>Total (International)</b>		<b>12.0</b>	<b>13.5</b>	<b>82.0</b>	<b>83.5</b>	<b>30.0</b>	<b>27.5</b>	<b>43.0</b>	<b>37.5</b>	<b>30.0</b>	<b>37.0</b>	<b>197.0</b>	<b>199.0</b>

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Subject Area	Target Organizations	Person-Months											
		NWFP		Punjab		Balochistan		Sindh		Federal		Total	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.
<b>B. Local</b>													
<b>"Common" Administered by Federal Component</b>													
1 Teaching of Computer/Information Technology	GCT/GPI/NISTE	4.0	12.5	16.0	16.0	4.0	4.0	16.0	16.0	8.0	7.0	48.0	55.5
2 Teaching of Sugar/Biomedical Technology	GPI	6.0	0.0	12.0	0.0			12.0	12.0			30.0	12.0
3 Teaching of Food Preservation Technology	GPIW					4.0	4.0	18.0	8.0			22.0	12.0
4 Development of Curricula and Instructional Materials for Existing Technologies	GCT/GPI/GPIW	6.0	0.0	30.0	49.6	6.0	2.0	30.0	0.0	0.0	21.5	72.0	73.1
5 Curriculum/Training and Learning Resources (TLR) Development and Teaching Methods in Technical Teacher Training	TTTCs	18.0	3.0	18.0	39.0	0.0	1.0	18.0	9.0			54.0	52.0
6 Examination Reforms and Certification	BTEs	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			16.0	16.0
7 Curriculum Research and Evaluation	MOE/DTEs/ BTEs	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	20.0	20.5
8 MIS Development	MOE/DTEs	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	3.0	5.0	18.0	20.0
9 Institutional Evaluation	MOE/DTEs	3.0	3.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	15.0	16.0
<b>Subtotal (Common)</b>		<b>48.0</b>	<b>29.5</b>	<b>90.0</b>	<b>119.6</b>	<b>28.0</b>	<b>25.0</b>	<b>111.0</b>	<b>62.0</b>	<b>18.0</b>	<b>41.0</b>	<b>295.0</b>	<b>277.1</b>

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Subject Area	Target Organizations	Person-Months											
		NWFP		Punjab		Balochistan		Sindh		Federal		Total	
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.
<b>"Province-Specific" Administered by Each Province</b>													
11 Teaching of Glass and Ceramics Technology	GCT, Lahore			18.0	18.0							18.0	18.0
12 Teaching of Electronic Publishing	GPI (P&GA), Lahore			12.0	11.5							12.0	11.5
13 Teaching of Automation Control	PSIT, Gujrat			18.0	21.0							18.0	21.0
14 Teaching of Environmental Technology	GCT, Rasul			18.0	17.0							18.0	17.0
15 Teaching of Chemical Technology	GCT, Peshawar	6.0	6.0									6.0	6.0
16 Teaching of Electronics	GCT, Peshawar	6.0	3.0									6.0	3.0
17 Teaching of Printing and Graphics	PSIT, Landhi							12.0	12.0			12.0	12.0
18 Teaching of Textile Dyeing and Printing	GMI, Landhi							12.0	12.0			12.0	12.0
19 Teaching of Petrochemicals	GMI, Badin							12.0	12.0			12.0	12.0
20 Teaching of Telecommunications Technology	GIT, Saifee							18.0	18.0			18.0	18.0
21 Teaching of Secretarial Technology	GPIW					4.0	4.0					4.0	4.0
22 Teaching of Design, Dressmaking, and Embroidery Technology	GPIW					4.0	4.0					4.0	4.0
23 Teaching of Auto Technology	GPI, Quetta					4.0	4.0					4.0	4.0

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Subject Area	Target Organizations	Person-Months													
		NWFP		Punjab		Balochistan		Sindh		Federal		Total			
		App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.	App.	Act.		
24 Teaching of Refrigeration and Air Conditioning	GPI, Quetta					12.0	12.0						12.0	12.0	
25 Teaching of Mining/Leather Technology	GPI, Quetta/ GPI, Mithi					12.0	12.0	12.0	12.0				24.0	24.0	
26 Development of Curricula/TLR/ Instructional Materials for Introducing New Technologies into Technical Teacher Training, including B.Ed. (tech.)	NISTE											30.0	25.0	30.0	25.0
27 Development of Curricula and Instructional Materials in Bachelor of Technology Specializations	GCTs				30.0	25.5								30.0	25.5
28 Labor Market Analysis for Technical Education Planning	MOE											6.0	5.0	6.0	5.0
29 Project Management (to assist PIUs)	MOE/DTEs	12.0	12.0	18.0	33.5	12.0	19.0	15.0	24.0	12.0	12.0	69.0	100.5		
30 Resource Persons (various disciplines) for Workshops, Seminars and Curriculum Committees	NISTE											18.0	18.0	18.0	18.0
<b>Subtotal (Province-specific)</b>		<b>24.0</b>	<b>21.0</b>	<b>114.0</b>	<b>126.5</b>	<b>48.0</b>	<b>55.0</b>	<b>81.0</b>	<b>90.0</b>	<b>66.0</b>	<b>60.0</b>	<b>333.0</b>	<b>352.5</b>		
<b>Total (Local)</b>		<b>72.0</b>	<b>50.5</b>	<b>204.0</b>	<b>246.1</b>	<b>76.0</b>	<b>80.0</b>	<b>192.0</b>	<b>152.0</b>	<b>84.0</b>	<b>101.0</b>	<b>628.0</b>	<b>629.6</b>		
<b>Grand Total (A&amp;B)</b>		<b>84.0</b>	<b>64.0</b>	<b>286.0</b>	<b>329.6</b>	<b>106.0</b>	<b>107.5</b>	<b>235.0</b>	<b>189.5</b>	<b>114.0</b>	<b>138.0</b>	<b>825.0</b>	<b>828.6</b>		

B.Ed. = Bachelors in Education, BTE = Board of Technical Education, DTE = Department of Technical Education, GCT = Government College of Technology, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, MIS = Management Information System, MOE = Ministry of Education, NISTE = National Institute of Science & Technical Education, P&GA = Printing & Graphic Arts, PIU = Provincial Implementation Unit, PSIT = Pakistan Swedish Institute of Technology, tech. = technology, TEVT = Technical Education & Vocational Training, TLR = Training and Learning Resource, TTTC = Technical Teacher Training Center

Source = Federal and Provincial Project Implementation Units

## STUDENT ENROLLMENT

Table A10.1: Student Enrollment Capacity

Institute Name	1995–1996	2003–2004	Increase
GPI, Quetta, Balochistan	600	960	360
GPIW, Quetta, Balochistan		480	480
GCT, Peshawar, NWFP	1080	1080	
GPI, Nowshera, NWFP	450	450	
GPIW, Peshawar, NWFP	380	380	
GPI, Swabi, NWFP	300	450	150
GPI, Timergara, Dir, NWFP	150	300	150
GPI, Bannu, NWFP	480	480	
GCT, Sahiwal, Punjab	450	450	
GPI, Layyah, Punjab	909	909	
GTTTC, Faisalabad, Punjab	300	300	
GCT, Faisalabad, Punjab	360	510	150
GPI Printing & Graphic Arts, Lahore, Punjab	300	325	25
GCT, Railway Road, Lahore, Punjab	1050	1050	
GCT, Raiwind Road, Lahore, Punjab	350	475	125
GCT, Rasul, Punjab	1050	1050	
PSIT, Gujrat, Punjab	632	707	75
GCT, Multan, Punjab	877	877	
GCT, Bahawalpur, Punjab	1200	1287	87
GPIW, Faisalabad, Punjab	536	536	
GPIW, Multan, Punjab	852	877	25
GPI, Sargodha, Punjab	1565	1565	
GPI Glass & Ceramics, Lahore, Punjab		30	30
GPIW, Lahore, Punjab	338	463	125
GIT, Jhelum, Punjab	300	300	
GPI, Rahim Yar Khan, Punjab	180	180	
GIT, Gujranwala, Punjab	225	270	45
GPI, Sialkot, Punjab	750	750	
GPIW, Bahawalpur, Punjab	132	132	
GCT, Karachi, Sindh	3000	3000	
GCT, Khairpur, Sindh	600	600	
Habib GIT, Nawabshah, Sindh	300	300	
PSIT Landhi, Sindh	1500	1650	150
GPIW, Karachi, Sindh	480	600	120
GPI, Sukkur, Sindh	540	540	
GPI, Jacobabad, Sindh	450	450	
G Saifee IT, Karachi, Sindh	1350	1650	300
GCT, Hyderabad, Sindh	2400	2400	
GPI Mithi, Sindh		150	150
GPIW, Korangi, Sindh		240	240
GMI, Landhi, Sindh		450	450
GPI, Badin, Sindh	300	300	
GMI, Khipro, Sindh		120	120
GMI, Hala, Sindh		120	120
GPIW, Sukkur, Sindh	120	360	240
<b>Total</b>	<b>26836</b>	<b>30553</b>	<b>3717</b>

GCT = Government College of Technology, GIT = Government Institute of Technology, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, NWFP = North West Frontier Province, PSIT = Pakistan Swedish Institute of Technology.

Source: Provincial Project Implementation Unit

**Table A10.2: Student Enrollment by Institutes (1999–2004)**

Institute Name	1999–2000	2000–2001	2001–2002	2002–2003	2003–2004
GPI, Quetta, Balochistan	469	666	633	615	641
GPIW, Quetta, Balochistan				172	336
GCT, Peshawar, NWFP	995	1026	936	690	888
GPI, Nowshera, NWFP	406	401	403	387	389
GPIW, Peshawar, NWFP	238	298	305	212	266
GPI, Swabi, NWFP	244	295	249	271	283
GPI, Timergara, Dir, NWFP	150	180	207	281	290
GPI, Bannu, NWFP	435	409	402	418	379
GCT, Sahiwal, Punjab	322	350	340	396	412
GPI, Layyah, Punjab	684	599	579	675	728
TTTC, Faisalabad, Punjab	242	233	222	291	292
GCT, Faisalabad, Punjab	312	335	329	422	506
GPI Printing & Graphic Arts, Lahore, Punjab	238	230	167	212	241
GCT, Railway Road, Lahore, Punjab	959	946	920	929	962
GCT, Raiwind Road, Lahore, Punjab	242	349	377	366	434
GCT, Rasul, Punjab	734	619	544	734	679
PSIT, Gujrat, Punjab	554	571	653	605	707
GCT, Multan, Punjab	457	466	449	605	809
GCT, Bahawalpur, Punjab	820	894	968	848	943
GPIW, Faisalabad, Punjab	190	179	175	181	196
GPIW, Multan, Punjab	109	104	95	100	115
GPI, Sargodha, Punjab	1098	1146	1049	1148	1269
GPI Glass & Ceramics, Lahore, Punjab					28
GPIW, Lahore, Punjab	215	240	260	275	306
GIT, Jhelum, Punjab	164	148	172	236	268
GPI, Rahim Yar Khan, Punjab	93	150	145	169	156
GIT, Gujranwala, Punjab	154	185	154	172	205
GPI, Sialkot, Punjab	492	570	527	729	741
GPIW, Bahawalpur, Punjab	45	43	46	50	62
GCT, Karachi, Sindh	2233	1578	1545	1270	2775
GCT, Khairpur, Sindh	793	857	844	316	524
Habib GIT, Nawabshah, Sindh	72	298	72	182	291
PSIT Landhi, Sindh	857	545	507	580	1521
GPIW, Karachi, Sindh	336	146	350	376	407
GPI, Sukkur, Sindh	322	322	255	350	415
GPI, Jacobabad, Sindh	373	358	357	304	342
Saifee GIT, Karachi, Sindh	875	835	697	640	1351
GCT, Hyderabad, Sindh	997	844	831	840	1665
GPI Mithi, Sindh	27	30	26	72	175
GPIW, Korangi, Sindh					20
GMI, Landhi, Sindh					255
GPI, Badin, Sindh	180	186	39	147	285
GMI, Khipro, Sindh					35
GMI, Hala, Sindh		81	10	50	100
GPIW, Sukkur, Sindh	58	55	50	47	81

Institute Name	1999–2000	2000–2001	2001–2002	2002–2003	2003–2004
GMI, Ghari Yaseen, Sindh	142	43	45	73	103
GMI, Pretabad, Hyderabad, Sindh	129	101	14	89	88
GMI, Latifabad, Hyderabad, Sindh	100	95	88	87	89
GMI, Matli, Sindh		10	25	49	66
GMI, Mirpur Bathoro, Sindh		32	35	39	34
GMI, Sehwan, Sindh		35	33	50	35
GMI, Tando Mohammad Khan, Sindh		66	66	64	50
GPI, Malir, Karachi, Sindh	618	620	609	449	478
GPI, Dadu, Sindh	481	280	280	280	255
GPI, Ghotki, Sindh	55	34	24	24	63
GPIW, Hyderabad, Sindh	68	67	82	103	125
GPI, Larkana, Sindh	415	420	210	433	425
GPI, Lyari, Karachi, Sindh	66	235	225	344	334
GPI, Matiari, Sindh	60	191	200	175	90
GPI, Mehar, Sindh	40	72	35	38	32
GPI, Mirpurkhas, Sindh	45	223	198	289	290
GPI, Shikarpur, Sindh	35	44	42	34	48
GPI, Sanghar, Sindh	265	281	283	149	183
GPI, Thatta, Sindh	261	292	271	163	175
NISTE, Islamabad		28	43	43	59
<b>Total</b>	<b>20964<sup>a</sup></b>	<b>20936</b>	<b>19697</b>	<b>20338</b>	<b>26795</b>

GCT = Government College of Technology, GIT = Government Institute of Technology, GMI = Government Monotechnic Institute, GPI = Government Polytechnic Institute, GPIW = Government Polytechnic Institute for Women, NISTE = National Institute of Science & Technical Education, NWFP = North West Frontier Province, PSIT = Pakistan Swedish Institute of Technology.

<sup>a</sup> Data for institutes in Sindh is for academic year 1998–1999 as no admissions were made during 1999–2000.

Source: Federal & Provincial Project Implementation Units

### SUMMARY OF MAJOR ACTIVITY ACHIEVEMENT

Major Activity	Appraisal Provision	Actual	Remarks
Civil works for facilities improvement of selected polytechnic institutions, including 6 teacher training facilities, 1 new polytechnic for women in Balochistan, and 1 office building for Board of Technical Education in NWFP	43 institutions	39 institutions	4 polytechnic institutions in Punjab were dropped, as existing facilities were considered suitable. Instead the Government decided to have additional equipment for institutions, which was considered more important.
Equipment/computer labs/furniture	44 Institutes	75 Institutes	Government decided to have equipment for additional institutions
Equipment for existing technologies	24 technologies	29 technologies	
Introduction of new technologies	22 technologies	30 technologies	
Computer labs	Number was not indicated	99 Labs	The actual requirements were assessed during implementation, and as requested by Government, were approved by the Asian Development Bank.
Staff development (local)	1,881 person-months	3,372 person-months	
Staff development (overseas)	616 person-months	254.6 person-months	Government discouraged overseas training using loan funds, and instead more in-country training was provided utilizing the available allocations.
Upgrading teachers skills	1,000 teachers	Over 2,000	
Consultants services (local)	628 person-months	629.6 person-months	
Consultant services (international)	197 person-months	199 person-months	
Enrollment capacity increase	By 3,000	3,317	
Establishment of IMCs	Selected institutions only, number was not indicated	More than 30 IMCs were established	
TLR	Number was not appraised	141 TLRs	Actual numbers were decided by experts committee and NISTE considering requirements during implementation.

IMC = Institute Management Committee, NISTE = National Institute of Science & Technical Education, NWFP = North West Frontier Province, TLR = Teacher Learning Resource

Source: Report and Recommendation of the President and Federal & Provincial Project Implementation Units