



1. Project Data:		Date Posted: 03/29/2010	
PROJ ID :	P050658	Appraisal	Actual
Project Name :	Third Technician Education Project	Project Costs (US\$M):	80.1
Country:	India	Loan/Credit (US\$M):	64.9
Sector Board :	ED	Cofinancing (US\$M):	71.0
Sector(s):	Vocational training (90%) Sub-national government administration (10%)		
Theme(s):	Education for the knowledge economy (25% - P) Rural services and infrastructure (25% - P) Access to urban services and housing (24% - P) Gender (13% - S) Participation and civic engagement (13% - S)		
L/C Number:	C3413		
		Board Approval Date :	09/07/2000
Partners involved :		Closing Date :	06/30/2006
Evaluator:	Panel Reviewer:	Group Manager:	Group:
Kris Hallberg	Martha Ainsworth	IEGSE ICR Reviews	IEGSE

2. Project Objectives and Components:

a. Objectives:

According to the PAD, the objective of the project was to assist the industrially and economically underdeveloped, and geographically remote states of the northeastern region (Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura), Jammu & Kashmir, and the Union Territory of Andaman & Nicobar Islands to expand capacity and improve the quality and efficiency of technician (polytechnic) education to meet the specific economic needs of each state. The project also aimed at increasing access of some disadvantaged sections of society (women, scheduled tribes and rural youth) to technician education and training.

The statement of objectives in the DCA was essentially the same as in the PAD .

As defined in the PAD (p. 2 and Annex 1), the key performance indicators for the achievement of outcomes were the following:

- Effectiveness and stage of implementation of proposed systemic reforms in technician (polytechnic) education in each state
- Percentage of polytechnic graduates employed /self-employed in their field of training within one year of graduation (target: 65 percent)

- Average time taken for completing polytechnic diploma (no targets specified).
- Percentage of cost recovery through internal revenue generation (no targets specified).
- Nature and level of interaction with local community and industry
- Percentage increase of women/tribal/rural students in enrollment in formal and non-formal programs (targets vary by states).

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components (or Key Conditions in the case of DPLs, as appropriate):

- (i) **Capacity Development /Expansion** (US\$48.18 m at appraisal, US\$48.19 m actual) for (a) establishing six new coeducational polytechnics and a skill development center, (b) strengthening twelve existing polytechnics and introducing new programs, (c) introducing continuing education and non-formal training programs for industry and community, and (d) providing student and faculty housing facilities .
- (ii) **Quality Enhancement** (US\$22.85 m at appraisal, US\$21.55 m actual): (a) modernizing existing laboratories and workshops, (b) developing/revising curricula to meet labor market needs as well as imparting entrepreneurial skills, (c) Improving staffing and imparting staff training, (d) increasing utilization of learning resources and media, and (e) promoting interaction with industry and community .
- (iii) **Efficiency Improvement** (US\$9.55 m at appraisal, US\$13.37 m actual) for (a) establishing/strengthening state boards/councils/directorates and other support units that deal with technician education to provide better planning, monitoring and guidance, (b) conducting research studies for systemic reforms, (c) instituting computer-based project and financial management systems, (d) providing substantial academic, financial and administrative autonomy with accountability to project polytechnics, (e) networking of polytechnics with other institutions/organizations, and (f) enhancing state-level policy support for technician education .

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

After an extension of 12 months, the project closed on 6/30/2007 and fully disbursed.

3. Relevance of Objectives & Design:

Project objectives were *substantially* relevant. Recent economic growth in India had been driven by service sectors, including the IT sector, and manufacturing . Lack of skilled technicians was becoming a bottleneck for continued high growth in both sectors . Despite the existence of a better educated labor force and considerable natural resources, the targeted states/UT had not yet benefited from economic reforms in India due in part to a lack of competent technical manpower . The objectives were consistent with one of the goals of the 2004 CAS, to increase the efficiency and responsiveness of technical training institutions to the changing labor market . The objectives are also consistent with the current (2008) Country Strategy which aims at achieving rapid, inclusive growth through, among other things, helping to remove infrastructure and skills constraints to growth in both urban and rural areas, including through fostering private sector participation .

Project design was *substantially* relevant. The Project was the last in a series that started by supporting states that had greater implementation capacity . Lessons of the first and second projects, as well as the special characteristics of the targeted states/UT, were taken into account by focusing more on women, scheduled castes and tribes, improving the technological infrastructure of poorer areas, and auditing procurement data more carefully .

However, the PAD did not provide labor market data to demonstrate that the project design was appropriate for the skills needed in the states/UT covered. A QAG review rated the Project's Quality at Entry as satisfactory but noted the following shortcomings: (i) the project was supply-driven and did not sufficiently involve the private sector, (ii) the PAD was over-optimistic in terms of demand for graduates in the state/UT economies and the economic analysis was insufficiently detailed, (iii) the PAD could have further described intended policy reforms and clearly defined the key indicator for the reforms, and (iv) the PDO contained a multiplicity of conflicting objectives .

4. Achievement of Objectives (Efficacy):

The Project objective has five parts: expanding capacity, improving the quality, and improving the efficiency of technical education; meeting the economic needs of targeted states /UT; and increasing access by disadvantaged groups.

Expanding the capacity of technician education : *highly achieved*.

- Student intake capacity increased from 3,630 to 9,133 (122 percent of target).

- Enrollment increased from 1,623 pre-project to 7,919 in 2006/07 (102 percent of target).
- Nine new polytechnics were established, as against the project target of six ; 12 others increased their capacity.
- The training, continuing education and community programs substantially exceeded their aims . In addition, at mid-term it was decided to establish 19 additional Skills Development centers.
- Enrollments in the project states far exceeded those in two eastern states that did not participate in the project (Manipur and Assam).

Improving the quality of technician education : *substantially achieved*. Most of the indicators presented in the ICR pertain to outputs rather than outcomes, however.

- Programs at two institutions were accredited during the project.
- Nine institutions obtained ISO-9000 certification through the establishment of documentation of all key processes, and establishment of monitoring, evaluation and feedback mechanisms . Only two were certified prior to the project.
- Sixty diploma programs and post-diploma programs were established against a target of 54 (the target was surpassed, 113%)
- Project outputs generally met or exceeded their targets (percentage of curricula re-oriented toward market needs, 107 percent; percentage of workshops and laboratories modernized, 122 percent; percentage of teachers and staff trained, 99 percent).

Improving the efficiency of technical education : *substantially achieved*.

- Capacity utilization increased: despite the large increase in admission capacity, 83 percent of seats were filled by the end of the project, compared to the baseline of 58 percent.
- Dropout and repetition rates were somewhat reduced over the life of the project, although improvement was smaller than expected.
- The average number of years needed by students to complete a three -year diploma decreased from 4.5 to about 3.3 years.
- Annual per student costs decreased in real terms by 35 percent.
- On average, students completed the diploma course in 3.3 years compared to the PAD target of 3.4 years.

Meeting the economic needs of targeted states /UT: *modestly achieved*.

- The ICR does not present evidence regarding the state economic needs that were fulfilled by the new skills and specialties. In comments on the draft ICR Review, the Region noted the difficulty in measuring the achievement of this objective, and pointed to the ICR's evidence on the employment of graduates . However, the ICR's evidence on the employment of graduates is incomplete . The ICR (p. 10) indicates that seven out of ten graduates from the 2005/06 batch of students found employment (the PAD target was 65 percent). State-level detail in Annex 2 shows that an average of 67 percent were employed or self-employed within one year of graduation. Six of the eight target states exceeded the target of 65 percent. However, the data is based on tracer studies that mostly measured employment in all fields, rather than in the field of training of the graduates (as specified by the PAD indicator). In addition, baseline data is missing for three of the eight states .
- States/UT have granted increased autonomy to polytechnics as envisioned at approval . Full academic and managerial autonomy has been decentralized to the institutional level in six states . Limited financial and administrative autonomy is provided to most polytechnics . Two states awarded full autonomy to the polytechnics through the creation of societies . This autonomy is expected to enable the institutions to independently make financial, managerial, administrative, and academic decisions to respond to local market needs, innovate and achieve efficiencies.

Increasing access by disadvantaged groups : *highly achieved*.

- The target of women's participation was ambitious and was partially achieved (81%). Enrollment of women increased from 487 to 3,038 (625%). Women made up 38% of the student body in 2006/07, compared to the national average of 22%.
- The Percentage of Scheduled Caste/Scheduled Tribe students in formal programs in Polytechnics increased (100% of target met); some states already had high enrollments, while others improved, e.g. Jammu and Kashmir increased in participation from 7% to 14%.
- The number of students from rural areas increased from 626 to 4,605. Rural student now make up two thirds of the student body (target was 58 percent).

In comments on the draft ICR Review, the Region noted that the project was implemented in states with very low capacity and in states with occurrence of natural disasters and elements of civil disturbance, where many development projects have failed.

5. Efficiency (not applicable to DPLs):

Efficiency is rated ***substantial***. Due to insufficient information regarding the methodology and assumptions of the cost-benefit analysis in the PAD, the ICR did not update the PAD's cost-benefit analysis. A new cost-benefit (internal

rate of return) estimation was undertaken and found that the project's internal rate of return varied from 22 percent to 26 percent depending upon the future lifetime unemployment rate for the supported beneficiaries (5 percent to 15 percent).

One issue of concern was that local-level procurement issues that may have compromised the efficiency of project implementation.

a. If available, enter the Economic Rate of Return (ERR)/Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation :

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	No		
ICR estimate	No		

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome:

Project outcome is rated **satisfactory**. Project objectives and design were substantially relevant. The objectives of expanding the capacity, improving the quality, and improving the efficiency of technical education were substantially achieved. The objective of increasing access of some disadvantaged groups (women, scheduled castes and tribes, and rural youth) to technician education and training was highly achieved. However, since the ICR does not present evidence that state/UT economic needs were met by new skills and specialties, the achievement of this objective is rated modest. Project efficiency is rated substantial.

a. Outcome Rating : Satisfactory

7. Rationale for Risk to Development Outcome Rating:

The project provided infrastructure and new curricula, but state governments must maintain adequate funding, respect institutional autonomy, and demand accountability from each institution. Their capability in these respects is uncertain, and government oversight may gradually diminish over the next five to ten years.

a. Risk to Development Outcome Rating : Moderate

8. Assessment of Bank Performance:

Quality at entry was **satisfactory**. The project followed the paradigm of earlier projects covering larger states, and lessons were taken into account for improved implementation, notably attention to poverty and gender, as well as concerns about poor procurement practices and limited counterpart funds. Stakeholders were consulted during preparation. The Bank sought remedies to eliminate the shortcomings in earlier projects and prepared this project quickly.

The quality of supervision was **moderately satisfactory**. Bank team members developed best practice guidelines and templates on autonomy, revenue sharing policies, student feedback mechanisms, and other policy guidelines. The review missions also introduced and promoted additional quality improvement, such as the ISO-9000 certification, accreditation, installation of language labs in polytechnics, and more soft skills in teaching. According to the ICR (p. 20), government officials rated the Bank highly in helping to reduce corruption, collusion and nepotism in this project, as well as in promoting efficiency and strengthening institutional capacity. Though the Bank strongly influenced management and institutional issues, less emphasis was put on monitoring students' learning outcomes.

On the negative side, Bank oversight was insufficient to ensure adherence to procurement guidelines for local procurement. Given the new modality of decentralized procurement, oversight should have been more careful. This could have been undertaken through more frequent post-reviews, and more direct oversight of Bank procurement specialists. Earlier post-reviews with follow-up on findings and dissemination to state governments would probably have strengthened state officials' strict adherence to Bank procurement guidelines without slowing down significantly the procurement processes. In addition, increased participation of financial management specialists in supervision missions would have strengthened financial management.

a. Ensuring Quality -at-Entry:Satisfactory

b. Quality of Supervision :Moderately Satisfactory

c. Overall Bank Performance :Moderately Satisfactory

9. Assessment of Borrower Performance:

Government performance was *satisfactory*. According to the ICR, the federal government and the selected states had a strong ownership of the project as aimed for in the Bank's CAS for FY 1998- 2000.

Implementing Agency Performance was *moderately satisfactory*. The performance of the national-level project implementation unit was satisfactory. The unit assisted states with workshops, exhibits, and guidelines on implementation. Nevertheless, according to the ICR, advice was not always timely and adequate. One reason may have been the relatively high turnover of staff in the unit.

Overall, the state governments and polytechnics performed satisfactorily. Some, such as those in the Andaman and Nicobar islands, stood out in services to community and industry, while others, such as Nagaland and Sikkim, succeeded in raising employment to above 80%. Others had shortcomings, such as failure to generate the required revenue in Tripura.

The project had significant procurement problems that included limited supervision of the procurement process and a number of violations (see Section 11). A post-review of adherence to Bank procurement guidelines procurement in 2005/06 contracts found that some states had few deviations from guidelines, while over half of the contracts reviewed in Arunachal Pradesh, Meghalaya, and Nagaland contained deviations.

a. Government Performance :Satisfactory

b. Implementing Agency Performance :Moderately Satisfactory

c. Overall Borrower Performance :Moderately Satisfactory

10. M&E Design, Implementation, & Utilization:

M&E design was *modest*. The project had a monitoring plan that tracked enrollments and other monitoring indicators. Most of the key performance indicators defined in the PAD were measurable, but some (e.g., "effectiveness and stage of implementation of proposed systemic reforms in technician (polytechnic) education in each state") were not. The PAD clearly describes the intention of giving substantial autonomy to the polytechnics, but a performance indicator for policy reforms was not defined. Baseline data and target values were provided for some indicators but not for others. Indicators to measure the achievement of the objective of "meeting the specific economic needs of each state" were insufficient. Finally, there is some concern regarding self-reporting of data by polytechnics.

M&E implementation was *substantial*. Performance indicators were periodically monitored as evidenced in NPIU review reports and mission Aide Memoires. Polytechnics and state implementers commissioned tracer studies to establish the indicators related to the labor market performance of graduates. An impact study and two utilization studies each summarized utilization reports from each of the 21 institutions. These studies relied upon field visits to each supported polytechnic and large surveys of beneficiaries.

M&E utilization was *substantial*. The ICR suggests that the data were used in supervision missions, but does not discuss the extent to which data were used in further decisions about the provision of technician education. In comments on the draft ICR Review, the Region indicates that M&E data were extensively analyzed and used as a basis for decisions in the supervision and joint review meetings of the Government, the States, and the Bank team.

a. M&E Quality Rating : Substantial

11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):

Procurement. A detailed report on the utilization of procured civil works, equipment, learning resources and other goods found that the financed items were in almost all cases fully installed and satisfactorily put to use. However, oversight of the local procurement process was insufficient, and several problems occurred. Although provided in the legal agreement, the project was not subjected to regular post -procurement reviews. The detailed

post-review for 2005-06 for all states/UT conducted after the project closing found deviations from guidelines in all 8 States/UT. The post review examined 99 contracts out of 407 for the year (24 percent). It found deviations from procurement guidelines in 53 contracts. Of these, 18 contracts (including 9 local shopping contracts from Nagaland and 3 works contracts from J&K) had significant deviations. The deviations were among others: use of state procedures instead of Bank procedures, splitting up of seemingly similar purchases to avoid using national competitive bidding, insufficient documentation of 3 quotes under shopping, insufficient adherence to bidding dates and bid opening procedures. According to the ICR, the Bank team and the National Project Director followed up on two specific complaints, which led to termination of services of a procurement consultant, review of a works contract before award, and a report to INT regarding fraudulent certificate of a local contractor.

Financial management. There were no major financial management (FM) issues, but oversight could have been strengthened. FM oversight was mostly limited to desk review of documents, and usually did not include field visits / interaction with project states or institutions. Therefore, the review of FM aspects relating to internal controls, staffing, effective utilization of funds etc. was inadequate.

12. Ratings:	ICR	IEG Review	Reason for Disagreement /Comments
Outcome:	Highly Satisfactory	Satisfactory	The ICR does not present evidence that state-UT economic needs were met by new skills and specialties.
Risk to Development Outcome:	Moderate	Moderate	
Bank Performance :	Satisfactory	Moderately Satisfactory	Bank oversight was insufficient to ensure adherence to procurement guidelines. In addition, increased participation of financial management specialists in supervision missions would have strengthened financial management.
Borrower Performance :	Satisfactory	Moderately Satisfactory	The project had significant procurement problems that included limited supervision of the procurement process and a number of violations.
Quality of ICR :		Satisfactory	

NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons:

- Technical education programs of high quality and relevance increase demand and promote efficiency . The problems often seen with demand for technical education may be overcome with new curricula and enhancements that increase the likelihood that students will learn the essential skills needed for their work .
- The perception of low prestige of technical education can be overcome with improved quality and relevance in instructional programs that increases the employability of graduates .

14. Assessment Recommended? Yes No

Why? To verify the ratings and as a building block for IEG's forthcoming evaluation of post-primary education and labor markets.

15. Comments on Quality of ICR:

The ICR has details about the project and critical thinking about its outcomes, as well as information about stakeholders' opinions regarding various outcomes such as Borrower and Bank performance . However, the policy reforms intended and achieved were not spelled out clearly .

a.Quality of ICR Rating : Satisfactory