Report Number: ICRR0021660

## 1. Project Data

| Project ID | Project Name |
|---|---|
| P099047 | IN: Vocational Training |
| **Country** | **Practice Area(Lead)** |
| India | Education |

| L/C/TF Number(s) | Closing Date (Original) | Total Project Cost (USD) |
|---|---|---|
| IDA-43190 | 31-Dec-2012 | 251,740,708.08 |
| **Bank Approval Date** | **Closing Date (Actual)** | |
| 05-Jun-2007 | 30-Sep-2018 | |

| | IBRD/IDA (USD) | Grants (USD) |
|---|---|---|
| Original Commitment | 280,000,000.00 | 0.00 |
| Revised Commitment | 252,218,754.36 | 0.00 |
| Actual | 251,740,708.08 | 0.00 |

| Prepared by | Reviewed by | ICR Review Coordinator | Group |
|---|---|---|---|
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## 2. Project Objectives and Components

### a. Objectives

The project development objective (PDO) of the Vocational Training Improvement Project (VTIP) as set out in the Financing Agreement was “to improve the employment outcomes of graduates from the Recipient’s vocational training system, by making the design and delivery of training more demand responsive.” The project was to be implemented in 33 States/Union Territories.

The Project Appraisal Document substantively had the same formulation.

This Review will assess efficacy based on "improving the employment outcomes of graduates from the Recipient's vocational training system." The second part of the PDO indicates *how* the first part will be achieved, and therefore denotes an output rather than an outcome. The assessment will therefore be made against two project outcome indicators: (i) the share of graduates employed within a year of graduation; and (ii) the real monthly earnings of graduates a year after graduation. A third indicator - the share of certified graduates including female graduates – will be treated as an output/intermediate outcome indicator.

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

No

## c. Will a split evaluation be undertaken?

No

## d. Components

The project included three components:

**Component 1: improving quality of vocational training** (estimated IDA cost at appraisal US$228 million; actual cost US$221 million). The component had three sub-components:

**Sub-component 1.1:** *This sub-component was to improve the quality and relevance of training in 400 competitively selected Industrial Training Institutes (ITI).* This was to be done by: (i) refurbishing and equipping all the selected ITIs; (ii) establishing centers of excellence (COE) in about 300 ITIs that would provide broad-based multi-skilling courses followed by specialized modules focusing on individual industrial sectors, to be run in parallel with the existing Craftsman Training Scheme (CTS) model; (iii) refurbishing teacher-training infrastructure; (iii) revising training curricula with industry participation and upgrading training facilities accordingly; (iv) launching new trade courses and discontinuing existing ones that no longer reflected industry demand; (vi) establishing facilities for a central management information system; and (vii) establishing training, counseling and placement cells to facilitate job search.

**Sub-component 1.2:** *This sub-component was to enhance the system's capacity to train new instructors, and provide basic and refresher courses as well as specialized programs to current instructors.* This was to be done by: (i) establishing 10 Instructor Training Wings (ITW) in selected ITIs for basic level training; (ii) conducting refresher training courses; and (iii) organizing specialized training courses outside the Ministry of Labor and Employment (MOLE).

**Sub-component 1.3:** *This sub-component was to establish an incentive fund* to provide grants to well-performing States to carry out sub-projects to strengthen vocational training in those States, including introducing shorter-term training programs in emerging areas requiring specialized skills.

**Component 2: Promoting Systemic Reforms and Innovations** (estimated IDA cost at appraisal US$29 million; actual cost US$9 million). The component had three sub-components:

**Sub-component 2.1:** *This sub-component was to promote reforms by supporting studies and consultancies* to: (i) set up a national vocational qualification framework (NVQF); (ii) design a policy framework for registering private training providers and courses offered by them that meet NVQF standards; (iii) design models for training the informal sector workforce; and (iv) assess the feasibility of establishing a training fund for financing formal training courses in publicly and privately financed training institutions, and training programs conducted by employers for new employees.

**Sub-component 2.2:** *This sub-component was to set up an innovations fund* to provide grants for carrying out pilot activities for improving the quality of vocational training provided by ITIs.

**Sub-component 2.3:** *This sub-component was to build capacity of three central institutions in developing new curriculum and instructional media packages, skills assessment and testing, and training standards.* The three institutions were: the APEX Hi-tech Institute at Bangalore (AHI), the Central Staff Training and Research Institute at Kolkata (CSTRI), and the Ministry of Labor's National Instructional Media Institute (NIMI).

**Component 3: Project management, monitoring and evaluation** (estimated IDA cost at appraisal US$23 million; actual cost US$11 million). This component was to finance project management and monitoring and evaluation.

**Changes**

**1. Revised components**. The VTIP experienced four Level 2 restructurings. In all four instances, the closing date was advanced as indicated below under "Dates," and all four extensions were requested by the government to ensure implementation of project activities.

- The first Level 2 restructuring in December 2012 was requested to compensate for implementation delays at the beginning of the project. It also introduced changes in basic instructor training: instead of establishing 10 ITWs, 5 Institutes of Training of Trainers (ITOT) were to be established offering both basic and advanced instructor training; and refresher training for instructors was consolidated with such activities in existing advanced training institutes.
- The second restructuring in November 2014 addressed implementation delays due to general and State elections, and to allow completion of ongoing tracer studies on graduates, innovative activities, and utilization of performance-based incentive grants.
- The third restructuring in September 2015 involved a shift in responsibility for the project from MOLE to a new Ministry of Skills Development and Entrepreneurship (MSDE).

The fourth restructuring in September 2016 was to complete still ongoing activities, and provide a bridging mechanism between VTIP and a proposed Strengthening for Industrial Value Enhancement Project (STRIVE, P156867, 2017-2022, IDA commitment of US$125 million).

## e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

<u>Project Cost</u>. Total project cost at appraisal was estimated at US$359 million. Actual project costs at closing were US$330.74 million.

<u>Financing</u>. IDA initially was to provide US$280 million; the amount disbursed was US$251.74 million.

<u>Borrower contribution</u>. The Borrower provided US$79 million, as planned.

<u>Dates</u>. The project was approved on June 5, 2007 and became effective on December 17, 2007. Its original closing date, December 31, 2012, was extended four times: from December 31, 2012 to November 30, 2014; from November 30, 2014 to September 30, 2015; from September 30, 2015 to September 30, 2016; and from September 30, 2016 to September 30, 2018, at which point the project closed.

## 3. Relevance of Objectives

### Rationale

The VTIP objectives were relevant to the Bank's Country Strategy, government policy, and the country situation, with weak employability of graduates from the public vocational training system. The objectives were fully consistent with the World Bank Group's India Country Partnership Framework (CPF) for FY18-22. Its focus area 2 – enhancing competitiveness and enabling job creation – included increasing access to quality market-relevant skills development. The VTIP objectives were relevant to government policy, notably the national policy for skills development, issued in 2015, which focused on improving labor market outcomes for graduates from its CTS by addressing major issues of quality in vocational training. The CTS operates the MOLE vocational training (VT) system through the ITIs and private Industrial Training Centers. A significant step was to be the introduction of a new approach by introducing multi-skilling into ITIs through COEs.

### Rating

High

## 4. Achievement of Objectives (Efficacy)

### OBJECTIVE 1

**Objective**

Improve the employment outcomes of graduates from the Recipient's vocational training system

**Rationale**

The PDO was to be achieved by increasing the share of pass-outs (graduates) from the system who (i) found employment within one year of finishing training; and (ii) saw an increase in their real monthly earnings measured one year after finishing training. To do so, ITIs would be equipped to provide COE training models as well as conventional CTS training, leading to better qualified graduates entering the job market.

**Outputs**

- Some 400 ITIs' workshops and laboratories were refurbished and provided new training equipment for CTS and COE training models
- Four ITOTs were established to provide basic level training. Originally, 10 ITWs were to be constructed for this purpose, but they were replaced by the same number of ITOTs during the first Level 2 restructuring. The number of ITOTs was reduced to 5 during the third restructuring and finally to 4 during the fourth restructuring. The ICR did not explain the causes or implications of the gradual decline in numbers.
- At project closing, 42 percent of project ITIs had signed a Memorandum of Understanding with local industry partners for improving the relevance of curricula, compared to a target of 50 percent and a baseline of 30 percent.
- 72 basic and refresher modules for trainers to be delivered through the country's distance education network were developed and ready for delivery, but not yet delivered, against a target of 25 and a baseline of 10. 20,000 ITI instructors were trained using the distance education network.
- 71 percent of instructor vacancies were filled, against a target of 80 percent.
- The three central institutions – AHI, CSTRI, and NIMI – upgraded their capacity for curriculum development/revision and development of textbooks and teaching/training aids for COEs' basic training and advanced training modules.
- As part of an effort to keep up with shifting demand for trades, new CTS trades were introduced, such as auto mechanics, welder fabrication and fitting, and agro-processing, while others were phased out, such as stenography and hair/skin care.
- Examination processes and certification for all trainees across all courses offered by the National Council for Vocational Training (NCVT) were automated.
- 19,400 new and current instructors were given refresher courses, against a target of 15,000 and a baseline of zero.
- 5 policy studies were commissioned by the project implementation unit, equaling the target.
- 5 innovation proposals were financed by the innovation fund, against a target of 10.
- 57 percent of project ITIs had active private sector participation in their management committees, against a target of 100 percent.

**Intermediate outcomes**

67 percent of pass-outs (71 percent male, 76 percent female) from project ITIs exited with an NCVT certificate, compared to a target of 73 percent (73 percent and 80 percent), and a baseline of 61 percent (62 percent and 74 percent).

**Outcomes**

The most recent available data – a tracking study done in 2014 of 12,000 ITI graduates from 2012, thus measuring the impact on pass-outs of improvements in the project-linked VT system over the first five years of the project – provides the following results:

- 53 percent (55 percent male, 41 percent female) of pass-outs from project ITIs found employment within one year of finishing training, compared to a target of 50 percent (52 percent, 48 percent) and a baseline of 32 percent (33 percent, 19 percent).
- Pass-outs from project ITIs had average monthly earnings of INR 4275 (male INR 4268, female INR 4397), compared to an original target of INR 3026 (INR 3093, INR 2451) and a 2007 baseline of INR 2421 (INR 2474, INR 1961).

While these results indicate substantial improvements in employability and earnings over the first five years of the project, it is likely that the results also are influenced by the state of the economy. Over the years 2009-2013, India had a period of strong economic growth that well may have influenced the outcomes of the tracking study, and therefore the project at that point in time.

Moreover, further findings of the tracking study indicate that project results may have been trivial. While 61 percent of COE graduates from project ITIs and 67 percent of CTS graduates from project ITIs (the former conducted broad-based multi-skilling courses, while the latter provide upgraded facilities) found employment within the prescribed period, 69 percent of graduates from public ITIs outside the project found employment within the same period. Similar discrepancies relate to earnings. Here it is unlikely that the results are influenced by the economic cycle.

**Rating**
Modest

**Rationale**

Results were not provided covering the entire project period. Findings from the 2014 tracking study likely were primarily influenced by the economic cycle, and in any event, its results indicated that graduates of non-project ITIs achieved similar or slightly better employment outcomes than those from project institutes.

**Overall Efficacy Rating**
Modest

**Primary reason**
Insufficient evidence

## 5. Efficiency

Cost-benefit analysis and rate of return calculations were undertaken at appraisal and in the ICR. Both considered internal efficiency of ITIs, labor market outcomes and lifetime earnings, and (in the case of the appraisal analysis) also sensitivity analysis. Appraisal rate of return calculations ranged between one and 18.4 percent applying a discount rate of 7 percent. A similar cost-benefit analysis conducted at the time of the ICR yielded an internal rate of return of 9 percent, i.e. returns to improved ITI performance were moderate. A more rigorous comparison between the various models – ITI/COE, ITI/CTS, and non-ITI training programs -- might have been useful in view of the results of the tracking study described in the efficacy section. Considering the long project implementation period – ten years – rate of return calculations might have been quite modest. Slow implementation also affected project efficiency: initial start-up delays, persistent difficulties in filling instructor vacancies, and reluctance to accept the center-of-excellence model (and its ultimate cancellation). Ultimately, a five-and a-half-year project extended over ten years.

### Efficiency Rating

Modest

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

| | Rate Available? | Point value (%) | *Coverage/Scope (%) |
|---|---|---|---|
| Appraisal | ✓ | 9.70 | 100.00<br>☐ Not Applicable |
| ICR Estimate | ✓ | 9.00 | 100.00<br>☐ Not Applicable |

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

## 6. Outcome

Relevance of objectives is rated **high**, as the project was in line with the Bank's CPF, and it reflected government concerns about its VT programs. Efficacy is rated a weak **modest**, as outcomes in terms of employability and earnings of graduates from the reformed system did not seem to be advantaged compared to other ITI graduates. Efficiency is rated **modest**. These ratings indicate significant shortcomings and an overall outcome rating of **Moderately Unsatisfactory**.

### a. Outcome Rating

Moderately Unsatisfactory

## 7. Risk to Development Outcome

Government policy is focused on providing vocational training that corresponds to the demands of the labor market. To that end, the elimination of COEs in favor of traditional CTS training that corresponds less well to the demands of the labor market could be seen as a move in a different direction. In part, this may have been provoked by unfamiliarity with the COE among potential employers, but possibly also following the results of the tracking study, which were such that they may have discouraged the authorities from pursuing COE further. However, the government remains committed to VT reform, as indicated by its support for the follow-up STRIVE project (see Section 2 on Changes). And the project has contributed to infrastructure development and refurbishment of 400 ITIs, and to capacity for curriculum development, especially for new trades.

## 8. Assessment of Bank Performance

### a. Quality-at-Entry

The project was strategically relevant and drew on the Bank's experience from its five earlier technical/vocational education and training investments in India, as well as analytical work done in anticipation of VTIP. In particular, a pre-project tracer study in 2006 drew attention to modest employment outcomes of VT system graduates and focused the discussion on issues that subsequently would be addressed under VTIP. That said, the project was ambitious, attempting to cover all the main issues in VT in the country. This may in part have contributed to the delays in implementation, ultimately resulting in a ten-year project. The preparation process itself also manifested weaknesses, as listed in the ICR (pages 20 and 21): there were weaknesses in implementation readiness that would delay project startup, notably in the establishment of national- and state-level project implementation units, which would delay civil works that in turn delayed the introduction of necessary workshops and ultimately affected the quality of COE training. Likewise, the COE training model itself was not fully assessed, affecting basic training of trainees, nor was the need for social marketing of COEs sufficiently recognized as a means of facilitating employability of graduates. Overall, the difficulties that arose are surprising, considering that the project was the sixth of its kind that the Bank undertook in India.

#### Quality-at-Entry Rating
Moderately Unsatisfactory

### b. Quality of supervision

It is difficult to determine whether a five-year project that took ten years and four extensions to complete was adequately supervised. Project design may have been ambitious, and repeated delays should have raised concerns that a consistent rating of project performance as moderately satisfactory or satisfactory until the very last year prior to closing does not indicate. The downgradings came about when the new implementing agency failed to meet seemingly critical project requirements, such as an end-of-project tracer study, an asset audit, use of purchased equipment, and so forth.

### Quality of Supervision Rating

Moderately Unsatisfactory

### Overall Bank Performance Rating

Moderately Unsatisfactory

## 9. M&E Design, Implementation, & Utilization

### a. M&E Design

The arrangements for results monitoring included three outcome indicators and 17 output indicators. While all three outcome indicators were connected to the PDO, two indicators – employment and earnings – were legitimate outcome indicators directly influencing the PDO, while the third one – share of certified graduates – was an intermediate outcome indicator; while certification supported the pool of employable graduates, it did not directly influence employment outcomes. Output indicators were formulated to capture the contribution of project activities towards achieving PDO-level outcomes.

Results analysis was to be further supported by a management information system (MIS) developed during the early years of project implementation, as well as tracer studies to collect outcome data. ITIs were to provide comprehensive information by submitting periodic progress reports on all project components and sub-components.

### b. M&E Implementation

Implementation included the collection of information on certified graduates, and graduate employment and earnings. Definitions for two indicators were adjusted during implementation: (i) the basis for calculating the share of graduates receiving NCVT certification was changed from “the percentage of trainees assessed” that received certificates, to “the percentage of trainees enrolled”; and the target for certified female graduates was reduced; and (ii) the calculation of graduates finding employment after one year had initially incorrectly been based on graduates finding employment at any time, and was changed to the intended “within one year."

The management information system was implemented with four modules – ITIs, apprenticeships, centrally funded institutes, and placement. The first two modules are functional, and the two remaining ones have been designed but were not yet functional at the time of the ICR (ICR, page 25).

Two tracer studies were implemented and delivered results. A third planned study, on a sample of 2016 graduates, did not take place.

### c. M&E Utilization

The MIS is currently being used to identify past trainees to issue certificates and provide online certificate validation. It is customized for MSDE’s use, but its use is reported to be expanding under the STRIVE Project (ICR, page 25). However, currently neither data flowing upward through the MIS nor downward towards the States seems to be used in decision making.

### M&E Quality Rating

Modest

## 10. Other Issues

### a. Safeguards

The ICR indicated an environmental category rating of "B", as both Environmental Assessment (OP/BP 4.01) and Indigenous Peoples (OP/BP 4.10) were triggered by the project. Activities under the project did not pose significant environmental risks, beyond civil works for creation/expansion/repair of buildings and pollution risks from overpopulated basic facilities. An Environmental Management Framework was developed, and a **satisfactory** implementation rating was maintained throughout the project. An Equity Assurance Plan was developed by the government, including a variety of actions targeted to disadvantaged/indigenous groups, with a **satisfactory** implementation rating maintained throughout the project

### b. Fiduciary Compliance

This section is an abridged version of the text in the ICR.

Financial management. Financial management performance of VTIP was consistently rated moderately satisfactory, except during the period 2008-09 where it was downgraded to moderately unsatisfactory. There were initial delays in submitting acceptable Interim Unaudited Financial Reports (IUFRs) and funds release due to delays in the preparation and submission of IUFRs by some States, and in releasing funds to the line department. Every fiscal year, there were significant delays by some States and institutes in furnishing their audit report to the Comptroller and Auditor General of India.

Review of audit reports in some States indicated the following: (a) records not produced for civil works; (b) procurement in excess of required quantities; (c) non-utilization of funds and issue of incorrect utilization certificates; (d) excess of expenditures incurred against the central share; (e) ineligible expenses; (f) differences between reported and audited expenditure; and (g) physical verification of fixed assets and stocks not conducted. As a consequence, some State expenditures were disallowed, resulting in lengthy settlement processes, including delays in the submission by the corresponding State of the necessary supporting documentation and requests to the national project implementation unit (NPIU) to recertify the given expenditures so the claims could be then submitted to the Bank for reimbursement.

By October 2017, about one year before the closing of the VTIP, the Bank team flagged the large amount of undisbursed funds and requested the NPIU to budget eligible expenditures that could be implemented before the closing date. At the time the VTIP closed, there was about US$27.58 million of undisbursed funds, some of which might have to be used to reimburse for recertification currently in progress.

Procurement. The procurement performance of the VTIP was rated moderately satisfactory throughout the implementation cycle except during the period 2009-10, where it was downgraded to moderately unsatisfactory.

VTIP-related procurement was largely handled at the ITI level following a shopping procedure (contracts up to 900,000 INRs) and at the State project implementation unit level following National Competitive Bidding and shopping procedures. All concerned persons handling procurement across all implementing agencies under VTIP underwent procurement training on Bank procurement procedures. Nevertheless, contracts needing prior review by the Bank were slow to be issued because, after receiving the no-objection of the Bank, the contracting process had to be reviewed and endorsed by the Expenditure Finance Committee at the MOLE and subsequently, the MSDE. The Bank conducted post procurement reviews on every alternate year beginning in 2008 on a 10 percent sample of contracts.

In mid-2015 the Bank team requested a VTIP asset audit. This study was contracted by the NPIU in the summer of 2018, and the findings indicated that 90 percent of newly constructed civil infrastructure was found to be suitable for intended use at present and in the future; only 52 percent of assets procured in the sampled ITIs were functional, while 22 percent of the assets were not being utilized; 19 percent of the procured assets were found to be nonfunctional due to lack of maintenance and non-continuous use of the asset; 51 percent of the procured assets were not in compliance with national or international relevant quality and safety standards; 78 percent of the assets under physical review were found to be compliant with NCVT requirements; out of total purchased assets, 68 percent are still being dedicated to the trades; and only 7 percent of the assets are insured.

### c. Unintended impacts (Positive or Negative)

None noted.

### d. Other

None noted.

## 11. Ratings

| Ratings | ICR | IEG | Reason for Disagreements/Comment |
|---|---|---|---|
| Outcome | Moderately Unsatisfactory | Moderately Unsatisfactory | |
| Bank Performance | Moderately Unsatisfactory | Moderately Unsatisfactory | |
| Quality of M&E | Modest | Modest | |
| Quality of ICR | --- | Substantial | |

## 12. Lessons

The following lessons are drawn from the ICR and edited.

**Pilot models need to be assessed before scaling them up**. Teams need to make sure that the challenges of scaling up innovative pilots are well understood by the authorities as well as the team.  The COE model that was piloted by the MOLE during VTIP preparation and then underpinned

VTIP design was never sufficiently assessed before scaling up. Consequently, COE implementation challenges were neither anticipated nor sufficiently addressed during implementation.

**Project design must be dimensioned to country capacity**. While sector challenges may be many and diverse, task teams need to focus on approaches that are implementable within the time frame of the project. VTIP attempted to address all the major challenges facing better employability and earnings within a relatively short five years. As a result, the project stretched over ten years and still came off with relatively modest results.

## 13. Assessment Recommended?

No

## 14. Comments on Quality of ICR

The ICR provided a sufficiently detailed discussion of the background and rationale of the project to allow the results to be assessed. At the same time, it could have been clearer in specifying project outputs, which often remained vague and indicative; and in explaining how the revisions and other changes influenced the results framework. On the other hand, its discussion of M&E was more thorough and hence more useful than often is the case in ICRs.

### a. Quality of ICR Rating

Substantial