PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC22387

Project Name	Technical Education Quality Improvement Project III (P154523)
Region	SOUTH ASIA
Country	India
Sector(s)	Tertiary education (100%)
Theme(s)	Education for the knowledge economy (70%), Export development and competitiveness (10%), Technology diffusion (10%), Decentralizatio n (10%)
Lending Instrument	Investment Project Financing
Project ID	P154523
Borrower(s)	Republic of India
Implementing Agency	Ministry of Human Resource Development
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	12-Mar-2015
Date PID Approved/ Disclosed	12-Mar-2015
Estimated Date of Appraisal Completion	31-Jan-2016
Estimated Date of Board Approval	31-Mar-2016
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

India is a lower middle-income country with a GDP per capita of US$1,499 (2013 US$). The country experienced high economic growth during 2001-11, with an average GDP growth of 7.9% per annum. Other than finance, this growth was driven by engineering-intensive sectors such as information and communication technologies (ICT), construction and manufacturing. The growth was accompanied by decreasing poverty levels and improved human development outcomes. From 2005-10, 53 million people were brought out of poverty; under-5 year mortality decreased from 88.1 to 58.6 per 1000 live births; and primary school net enrollment increased from 85.7% to 98.9%. While economic growth slowed in the recent past, decelerating from 9.6% in 2010 to 5% in 2013, it is expected to recover, reaching 6.4 percent in 2015 and 7 percent in 2016. This growth is again expected to be driven by engineering-intensive sectors, such as ICT, chemical industries, transportation, capital goods and infrastructure. A serious concern is the relative lack of technical

skills among labor market entrants in engineering-intensive sectors in India (World Bank 2010; World Bank 2015). Without these skills, growth is likely to be constrained. And without growth, deep inequalities cannot be addressed: for example, approximately a quarter of the population remains poor or vulnerable and 17 percent of children are suffering from malnourishment.

Sectoral and Institutional Context

At present, India has approximately 3500 engineering/technical institutions, with a total intake capacity exceeding 1.75 million students in 2013-14 and total enrolment (all years) estimated at about 3.85 million students as of 2014-15 (Larsen, 2015). Nearly 91% of institutions are private, many opening in the 2000s as school completion rates improved and the country's growth trajectory soared. While overall access is satisfactory (in fact, there appears now to be an over-supply of places), average quality and equity of access are not. A small number of Indian engineering institutions supply high-quality manpower to the world's leading companies and research institutions; while the majority of institutions have high drop-out and low employment rates. The lack of employability of engineering graduates has been widely articulated in a number of reports, including World Bank (2010) and NASSCOM (2011). Although a recent survey by the World Bank and FICCI in 2014 covering nearly 900 companies found a sharp turn-around in overall satisfaction levels with engineering graduates, technical skills remained wanting. In addition to some institutions having a better market orientation, a key factor explaining the improvement in satisfaction levels pertained to an oversupply of engineers given the market slump, allowing companies to be more selective. This begs the question of what will happen as the market lifts.

The lack of equity in engineering education is the second major area of concern. Regionally, engineering colleges are concentrated in relatively prosperous states such as Andhra Pradesh, Tamil Nadu and Maharashtra — not in low-income states (except Uttar Pradesh) — underscoring the need to provide students from these states better opportunities for quality engineering education (in-state and/or out-of-state). Further, women, low-income and low-caste students are underrepresented in engineering colleges. Nearly 40% of urban male students of advantaged caste groups attend engineering colleges, whereas only 15% of SC/ST rural women do. This also translates into lower faculty representation from the latter groups. Engineering education is expensive — a student studying in a government technical college spends approximately Rs 20,000 ($1,700) per year and one in a private technical college almost twice as much; consequently, low-income students suffer.

The low quality of engineering colleges is explained largely by: high faculty vacancy rates; under-qualified faculty; lack of institutional autonomy; weak quality assurance mechanisms; a cumbersome and ineffective university affiliation system; and weak information disclosure policies and accountability. Equity issues are compounded by poorly developed credit markets for education and the fact that disadvantaged groups enter college less-prepared academically and socially than their more advantaged peers, and colleges have inadequate student support systems.

Relationship to CAS

Technical Education Quality Improvement Project III (TEQIP III) supports the Country Partnership Strategy (CPS) for 2013-17, specifically, the engagement areas relating to integration and inclusion. Both engagement areas foresee an increase in high quality workers to drive and sustain economic growth in India. Further, TEQIP III will include efforts focused on improving technical education in low-income and special category states. The project is consistent with India's 12th Five Year Plan, based on the pillars of faster, sustainable, and inclusive growth, which emphasizes increasing the

supply of highly-skilled workers to drive the economy, as well as helping low-income states catch up with their more advanced neighbors.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed Project Development Objective is to improve the performance of technical education institutions, in terms of efficiency, quality and equity.

Key Results (From PCN)

The project is likely to track the following key results in project institutions, to be refined during preparation:

• On time graduation rates of undergraduate students (disaggregated by gender/SC/ST) [Quality and Equity]
• Student satisfaction levels of those in final year of studies (disaggregated by gender/SC/ST) [Quality and Equity]
• Accreditation status of institutes [Quality]
• Percentage of students in institutes from disadvantaged groups [Equity]
• Employer satisfaction with newly graduated engineers [Quality]
• Number of direct project beneficiaries (including percentage female)

III. Preliminary Description

Concept Description

The Bank has supported two projects in engineering education. TEQIP I closed in 2009, and was rated satisfactory by the Bank and an Independent Evaluation Group Project Performance Appraisal Report (IEG PPAR). It received praise for undertaking fundamental reforms in the functioning of engineering institutions by focusing on student learning, employment, research and governance reforms. TEQIP II will close in 2016 and the Project Development Objective is currently rated satisfactory. The transition rate of undergraduate students from the first year to the second year has increased from 55 percent to 65 percent in Project institutions since TEQIP II became effective in 2010. In addition to carrying forward the reform agenda initiated under its predecessor, TEQIP II initiated a range of innovative practices on pedagogical, research and governance issues with the support of the IITs and IIMs and learning from good international experiences; and these reforms are now engaging non-TEQIP institutions. For instance, a number of Good Governance capacity building activities occurred during 2014. A TEQIP Good Governance web-site has been developed and is available on http://www.teqipgoodgovernance.in/index.html. Many of the reforms initiated under TEQIP I and II have been incorporated into the Government of India's flagship centrally-sponsored scheme on higher education, Rashtriya Uchchatar Shiksha Abhiyan (RUSA).

The basic structure of the first two projects – institutional grants plus targeted capacity building – has proven effective in pursuance of the project objectives. However, the proposed operation would incorporate some significant new features, drawing on the lessons from previous projects and extending the policy reform agenda. During project preparation the following issues will be discussed:

(1) Previous phases have shown the positive impact of institutional autonomy over academic issues, but also the limits of that autonomy. The proposed project would push for increased autonomy over financial, administrative and human resource issues combined with increased

institutional accountability of results, implying a new role of the central and state governments in respect of these institutions.
(2) Develop a differential approach for low-income states, whereby the project assists them to make systemic reforms across several institutions (previous phases have found that these states have only one or two institutions which survive the competitive selection; as a result, the project has little traction in the state).
(3) Strengthen performance funding, by tying more funding to positive changes at the institutional level. This might imply starting with fewer resources per institution but reaching more institutions so as to reward those that do well.
(4) Timely budget allotments and fund releases at the State and SPFU level. Fund flows through State treasuries have been slowing expenditures under TEQIP II. In addition, the Project will benefit from strengthening financial management procedures at the institutional level for all institutional funds, regardless of source, with special emphasis on assurance and compliance mechanisms.
(5) Work with selected affiliating universities, based upon their proposals for academic and governance reforms (these universities typically have hundreds of affiliating colleges, the majority of which are private in the case of engineering education). This would help meet both quality-oriented and regulatory goals for improving quality at a much larger scale than possible with only the 250-odd project institutions.
(6) Seek to select first round of institutions prior to project effectiveness.

TEQIP III is expected to have 2 components:

(I) Enhancing Institutional Quality, Equity and Governance (Bank support - $290 mill; Total component cost - $550 mill.). There would be 3 sub-components:

(i) Institutional Development Grants to competitively-selected colleges. These grants would have a strong performance element. Activities to be covered include: pedagogical and other training for faculty; new fields of study/curricula with better employment prospects; student placement cells; mechanisms for tracking of graduates; supporting institutional autonomy; student placement; incentives to increase enrollment of girls/disadvantaged groups; development of technology based distance learning; and girls hostels.
(ii) Quality Enhancement Grants to competitively-selected affiliating universities: to support curriculum reform, encourage institutions to acquire and exercise autonomy status, improve student placement and enhance quality assurance procedures. Since affiliating universities cater to large numbers of private colleges, this is an important mechanism to improve the quality of engineering education across the board.
(iii) Centers of Excellence Grants to competitive-selected institutions to scale up innovation and multi-disciplinary teaching and research partnerships with industry.

(II) Technical Assistance to the Ministry of Human Resource Development and State Governments (Bank support - $10 mill.; Total component cost -$15 mill.)
Under this component, technical assistance will be provided to the Department of Higher Education in areas in project management, monitoring and evaluation, and in the establishment of robust project information systems. In addition, central initiatives to support institutional development, using the IITs and IIMs, will be supported. These activities will be made available to non-TEQIP institutions.

In addition, for institutions and governments of low-income states, new activities need to be developed during preparation to address their specific needs. The intention would be to build capacity of groups of institutions for self-improvement and of governments to support institutional development and technical education reform at the state level. These activities will impact non-TEQIP institutions as well.

For the first time, a results-based funding modality is proposed as the lending instrument for the Project, with a Disbursement Linked Indicators (DLIs) approach for the first component. Indeed, the Government of India's proposal suggests that the government should have a results-based arrangement with project institutions.

In line with World Bank's operational policies an Environment Assessment will be undertaken and based on the findings, an Environment Management Plan/Framework will be prepared to guide/ improve the management of environment, health and safety aspects on the campuses of TEQIP III institutions supported/covered under the project. A Social Assessment (SA) will be commissioned and based on the findings, the project will develop a Tribal Development Framework/ Plan and equity guidelines to ensure that students from tribal and other disadvantaged groups who enter the TEQIP III participating institutions are provided with equitable benefits.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	×		
Natural Habitats OP/BP 4.04		×	
Forests OP/BP 4.36		×	
Pest Management OP 4.09		×	
Physical Cultural Resources OP/BP 4.11		×	
Indigenous Peoples OP/BP 4.10	×		
Involuntary Resettlement OP/BP 4.12		×	
Safety of Dams OP/BP 4.37		×	
Projects on International Waterways OP/BP 7.50		×	
Projects in Disputed Areas OP/BP 7.60		×	

V. Financing (in USD Million)

Total Project Cost:	600.00	Total Bank Financing:	300.00
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	300.00
International Development Association (IDA)	300.00
Total	600.00

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