



**OFFICIAL USE ONLY**

IDA/R2015-0173/1

June 11, 2015

**Closing Date: Tuesday, June 30, 2015  
at 6 p.m.**

FROM: The Acting Corporate Secretary

**India - Madhya Pradesh Higher Education Quality Improvement Project**

**Project Appraisal Document**

Attached is the Project Appraisal Document regarding a proposed credit to India for a Madhya Pradesh Higher Education Quality Improvement Project (IDA/R2015-0173), which is being processed on an absence-of-objection basis.

Distribution:

Executive Directors and Alternates  
President  
Bank Group Senior Management  
Vice Presidents, Bank, IFC and MIGA  
Directors and Department Heads, Bank, IFC and MIGA

Document of  
The World Bank

**FOR OFFICIAL USE ONLY**

Report No: PAD1080

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF  
US\$ 300 MILLION  
(SDR 215.8 MILLION, ESTIMATE)

TO THE

REPUBLIC OF INDIA

FOR A

MADHYA PRADESH HIGHER EDUCATION QUALITY IMPROVEMENT PROJECT

June 9, 2015

Education Global Practice  
SOUTH ASIA

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

## CURRENCY EQUIVALENTS

Exchange Rate Effective June 9, 2015

Currency Unit = INR  
INR 63.94 = US\$1

FISCAL YEAR  
April 1 – March 31

## ABBREVIATIONS AND ACRONYMS

AISHE	All India Survey on Higher Education
APD	Additional Project Director
DLI	Disbursement Linked Indicators
DHE	Department of Higher Education
DPR	Detailed Project Request
EA	Environment Assessment
EEP	Eligible Expenditure Program
EIRR	Economic Internal Rate of Return
EMF	Environment Management Framework
FM	Financial Management
FMP	Financial Management and Procurement
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
GESI	Gender Equity and Social Inclusion
GOI	Government of India
GOMP	Government of Madhya Pradesh
GRM	Grievance Redress Mechanism
GRS	Grievance Redressal Service
HE	Higher Education
HEI	Higher Education Institution
IBRD	International Bank for Reconstruction and Development
ICT	Information Communication and Technology
IDA	International Development Association
IQAC	Internal Quality Assurance Cell
IUFR	Interim Unaudited Financial Report
KPI	Key Performance Indicator
M&E	Monitoring and Evaluation
MHRD	Ministry of Human Resource Development
MIS	Management Information System
MP	Madhya Pradesh
MPHEQIP	Madhya Pradesh Higher Education Quality Improvement Project
MPLUN	Madhya Pradesh Laghu Udyog Nigam
NAAC	National Assessment and Accreditation Council
NSS	National Sample Survey
PD	Project Directorate
PDO	Project Development Objective
PG	Post-Graduate

PIP	Project Implementation Plan
PRAMS	Procurement Risk Assessment Management System
PWD	Public Works Department
RBF	Results Based Financing
RUSA	Rashtriya Uchchatar Shiksha Abhiyan
SC	Scheduled Caste
SSA	Social Systems Assessment
ST	Scheduled Tribe
SHEC	State Higher Education Council
SMF	Social Management Framework
TDP	Tribal Development Plan
TEQIP	Technical Education Quality Improvement Project
UG	Undergraduate
UGC	University Grants Commission

Regional Vice President:	Annette Dixon
Country Director:	Onno Ruhl
Senior Global Practice Director:	Claudia Maria Costin
Practice Manager:	Keiko Miwa
Task Team Leader(s):	Toby Linden, Sangeeta Goyal

**INDIA**  
**Madhya Pradesh Higher Education Quality Improvement Project**

**TABLE OF CONTENTS**

	<b>Page</b>
<b>I. STRATEGIC CONTEXT .....</b>	<b>1</b>
A. Country Context.....	1
B. Sectoral and Institutional Context.....	2
C. Higher Level Objectives to which the Project Contributes .....	4
<b>II. PROJECT DEVELOPMENT OBJECTIVES .....</b>	<b>4</b>
A. PDO.....	4
B. Project Beneficiaries .....	4
C. PDO Level Results Indicators.....	5
<b>III. PROJECT DESCRIPTION .....</b>	<b>5</b>
A. Project Financing .....	6
B. Project Cost and Financing .....	6
C. Lessons Learned and Reflected in the Project Design.....	7
<b>IV. IMPLEMENTATION .....</b>	<b>8</b>
A. Institutional and Implementation Arrangements .....	8
B. Results Monitoring and Evaluation .....	8
C. Sustainability.....	9
<b>V. KEY RISKS .....</b>	<b>9</b>
A. Overall Risk Rating and Explanation of Key Risks.....	10
<b>VI. APPRAISAL SUMMARY .....</b>	<b>10</b>
A. Economic and Financial Analysis.....	10
B. Technical.....	11
C. Financial Management.....	12
D. Procurement .....	12
E. Social (including Safeguards).....	13
F. Environment (including Safeguards) .....	14
G. World Bank Grievance Redress.....	15

<b>Annex 1: Results Framework and Monitoring .....</b>	<b>16</b>
<b>Annex 2: Detailed Project Description.....</b>	<b>38</b>
<b>Annex 3: Implementation Arrangements .....</b>	<b>49</b>
<b>Annex 4: Implementation Support Plan.....</b>	<b>70</b>
<b>Annex 5: Economic and Financial Analysis .....</b>	<b>73</b>

## PAD DATA SHEET

India

MP Higher Education Quality Improvement Project (P150394)

### PROJECT APPRAISAL DOCUMENT

SOUTH ASIA

0000009057

Report No.: PAD1080

Basic Information			
Project ID P150394	EA Category B - Partial Assessment	Team Leader(s) Toby Linden, Sangeeta Goyal	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date 16-Jun-2015	Project Implementation End Date 31-Aug-2021		
Expected Effectiveness Date 01-Sep-2015	Expected Closing Date 31-Aug-2021		
Joint IFC No			
Practice Manager/Manager Keiko Miwa	Senior Global Practice Director Claudia Maria Costin	Country Director Onno Ruhl	Regional Vice President Annette Dixon
Borrower: Department of Economic Affairs, Ministry of Finance, Republic of India			
Responsible Agency: Department of Higher Education, Madhya Pradesh			
Contact: Telephone No.:	K. K. Singh 91 755 2441056	Title: Email:	Principal Secretary pshighedu@mp.gov.in
Project Financing Data(in USD Million)			
[ ] Loan	[ ] IDA Grant	[ ] Guarantee	
[ X ] Credit	[ ] Grant	[ ] Other	
Total Project Cost:	430.00	Total Bank Financing:	300.00
Financing Gap:	0.00		
Financing Source			Amount

BORROWER/RECIPIENT	130.00
International Development Association (IDA)	300.00
Total	430.00

### Expected Disbursements (in USD Million)

Fiscal Year	2016	2017	2018	2019	2020	2021	2022
Annual	57.00	53.00	63.00	64.00	42.00	19.00	2.00
Cumulative	57.00	110.00	173.00	237.00	279.00	298.00	300.00

### Institutional Data

#### Practice Area (Lead)

Education

#### Contributing Practice Areas

#### Cross Cutting Topics

- Climate Change
- Fragile, Conflict & Violence
- Gender
- Jobs
- Public Private Partnership

#### Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Education	Tertiary education	100		
Total		100		

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

#### Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Human development	Education for the knowledge economy	100
Total		100

#### Proposed Development Objective(s)

The development objective of the proposed project is to improve student outcomes especially of disadvantaged groups in selected higher education institutions and to increase the effectiveness of the higher education system in Madhya Pradesh.

<b>Components</b>		
<b>Component Name</b>	<b>Cost (USD Millions)</b>	
Grants Support to Higher Education Institutions	270.00	
State Level Initiatives	15.00	
Improving System Management	15.00	
<b>Systematic Operations Risk- Rating Tool (SORT)</b>		
<b>Risk Category</b>	<b>Rating</b>	
1. Political and Governance	Substantial	
2. Macroeconomic	Low	
3. Sector Strategies and Policies	Low	
4. Technical Design of Project or Program	Moderate	
5. Institutional Capacity for Implementation and Sustainability	Substantial	
6. Fiduciary	Substantial	
7. Environment and Social	Moderate	
8. Stakeholders	Substantial	
9. Other	NA	
<b>OVERALL</b>	Substantial	
<b>Compliance</b>		
<b>Policy</b>		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [ X ]
Does the project require any waivers of Bank policies?	Yes [ ]	No [ X ]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [ X ]
Does the project meet the Regional criteria for readiness for implementation?	Yes [ X ]	No [ ]
<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04		X
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11	X	
Indigenous Peoples OP/BP 4.10	X	
Involuntary Resettlement OP/BP 4.12		X

Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X

### Legal Covenants

Name	Recurrent	Due Date	Frequency
Project Implementation Plan		September 8, 2015	

#### Description of Covenant

The Project Implementing Entity shall, by not later than within one week of the Effective Date, prepare and adopt the Project Implementation Plan (PIP), in form and substance satisfactory to the Association, and thereafter ensure that the Project is carried out in accordance with the PIP as agreed with the Association.

Name	Recurrent	Due Date	Frequency
Independent Verification Agent(s)	X		Continuous

#### Description of Covenant

The Project Implementing Entity shall appoint, and thereafter maintain throughout the Project implementation period, independent verification agent(s), with terms of reference and qualifications satisfactory to the Association, for the purposes of carrying out independent verification of the Disbursement Linked Indicator (DLI) targets.

Name	Recurrent	Due Date	Frequency
Submission of DLI reports	X		Continuous

#### Description of Covenant

The Recipient shall not later than May 15 and November 15 of each year during the Project implementation period, as part of the Project Reports, furnish reports to the Association on the status of achievement of the relevant DLI targets and the DLI verification reports of the independent agent(s).

### Conditions

Source Of Fund	Name	Type
IDA Credit	Disbursement Condition	Disbursement

#### Description of Condition

The Recipient may not withdraw the proceeds of the Financing for Eligible Expenditure Programs (EEPs) unless and until it has (i) adopted the PIP in form and substance satisfactory to the Association; (ii) furnished evidence satisfactory to the Association that it has achieved the respective DLIs targets; and (iii) furnished to the Association the interim unaudited reports documenting the incurrence of EEPs against which withdrawal is requested.

### Team Composition

#### Bank Staff

Name	Role	Title	Specialization	Unit
------	------	-------	----------------	------

Tobias Linden	Team Leader (ADM Responsible)	Lead Education Specialist		GEDDR	
Sangeeta Goyal	Team Leader	Senior Economist		GEDDR	
Satyanarayan Panda	Procurement Specialist	Procurement Specialist		GGODR	
Papia Bhattacharji	Financial Management Specialist	Sr Financial Management Specialist		GGODR	
Karthika Radhakrishnan	Team Member	Operations Analyst		GEDDR	
Mamata Baruah	Team Member	Senior Program Assistant		SACIN	
Neha Pravash Kumar Mishra	Safeguards Specialist	Senior Environmental Specialist		GENDR	
Satya N. Mishra	Safeguards Specialist	Social Development Specialist		GSURR	
Tara Béteille	Team Member	Economist		GEDDR	
Jorge Luis Alva-Luperdi	Legal	Senior Counsel		LEGES	
Maya Port	Legal	Counsel		LEGES	
<b>Extended Team</b>					
<b>Name</b>	<b>Title</b>	<b>Office Phone</b>	<b>Location</b>		
<b>Locations</b>					
<b>Country</b>	<b>First Administrative Division</b>	<b>Location</b>	<b>Planned</b>	<b>Actual</b>	<b>Comments</b>
India	Madhya Pradesh	State of Madhya Pradesh	X		The project will cover universities and colleges across the State.



## I. STRATEGIC CONTEXT

### A. Country Context

1. India is a lower middle-income country with a Gross Domestic Product (GDP) per capita of US\$1,499 (2013 US\$ PPP).<sup>1</sup> It has made considerable progress in economic growth and poverty reduction over the past ten years. During 2001-11, average GDP grew at 7.9% per annum. 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 increasing from 85.7% to 98.9%.

2. Yet, a number of challenges exist, notably, a deceleration of economic growth following the global financial crisis and high levels of inequality. Economic growth slowed in the recent past, decelerating from 9.6% in 2010 to 5% in 2013, but has started to recover and is expected to reach 7% in 2016.<sup>2</sup> The forecast for inequality is less optimistic, with economic inequality and differences in human development outcomes remaining stark, especially across regions, caste and gender.<sup>3</sup> A child belonging to the richest income quintile has an under-5 year mortality rate that is 3.3 times lower than one born into the poorest quintile, and a person from the richest quintile has 2.5 times more years of education than one from the poorest quintile. Importantly, nearly 50% of India lives in 14 low income/special category states with poverty rates close to 40% — and faces the reality of poor development outcomes.

3. Madhya Pradesh (MP), with a State GDP per capita of US\$898 (2012)<sup>4</sup>, is a low-income state, with a population of 73 million, of which 75% live in rural areas. While average human development indicators in MP resemble the national average, rural areas, women, and Scheduled Caste/Scheduled Tribe (SC/ST) groups face significant disadvantages. For example, the percentage of people with education above the primary level is 36% (national average is 44%); in urban areas, over 47% of the population has completed at least primary school; in rural areas, less than 29% has.<sup>5</sup> Within rural areas, attainment is particularly poor for disadvantaged groups: only 19% of STs and 20% of women have education levels beyond the primary level. Infant mortality rate and Under-5 year mortality rate differ by 5-7 extra deaths per 1000 live births for girls compared to boys, and more than 20 extra deaths per 1000 live births for STs. MP has nearly 15% of the country's ST population.<sup>6</sup>

4. India's 12th Five Year Plan (2012-17), based on the pillars of faster, sustainable, and inclusive growth, 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. In its Vision 2018 document (December 2013), MP has outlined plans for the state's development. In higher education (HE) it has identified reforms include performance based funding of higher education institutions (HEIs), HEIs pursuing self-determined reforms, and Information Communication and Technology (ICT) enabled education.

---

<sup>1</sup> Source for the figures in this paragraph from: <http://data.worldbank.org/data-catalog/world-development-indicators>

<sup>2</sup> <https://www.worldbank.org/en/publication/global-economic-prospects/summary-table> (accessed June 9, 2015)

<sup>3</sup> Martin Rama, Tara Bêteille, Yue Li, Pradeep K Mitra and John L Newman. 2014. *Addressing Inequality in South Asia*. South Asia Development Matters series. World Bank. Washington DC.

<sup>4</sup> <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed June 9, 2015)

<sup>5</sup> World Bank. 2012. *Madhya Pradesh Higher Education Reform Options*. South Asia Human Development Department. World Bank. Washington DC.

<sup>6</sup> Ibid.

## B. Sectoral and Institutional Context

5. HE in India has been expanding rapidly, with enrollment doubling from 8.4 million students to 17 million students from 2001-11. These students are enrolled in 665 universities and 24,120 colleges.<sup>7</sup> Universities, whether government or private, are established by an Act of Parliament or of the State Legislative Assembly. With the exception of private universities, the respective government, central or state, is the primary funder of key categories of expenses — salaries, buildings and equipment. Universities must follow the guidelines and notifications issued by the University Grants Commission (UGC) to be eligible for central government funds. This apart, universities are autonomous, in that they have relative freedom to determine the academic, financial and administrative aspects of their functioning. The exact degree of freedom is specified in their respective Acts. Colleges in India, whether government or private, are categorized into the following types: constituent colleges, affiliated colleges and autonomous colleges. Constituent colleges are established as part of a university. Affiliated colleges are expected to follow the curricular and examination guidelines of their affiliating universities. Autonomous colleges, in theory, have freedom over curriculum and examination decisions, but not financial or administrative issues. Colleges are granted autonomy based upon the recommendation of the UGC in consultation with the respective government and the university concerned.

6. Nearly 10% of all HE students in India are enrolled in university/colleges in MP.<sup>8</sup> These 1.6 million students attend 36 universities and 1316 colleges in the state.<sup>9</sup> In 2012-13, MP's Gross Enrollment Ratio (GER) in HE was 19.5%, close to the national average of 21.1%. However, in the age group 18 to 23 years, only 13.1% of SC students and 7.5% of ST students were enrolled in HE. Enrollment rates for women students in MP are especially low, with only 36% of enrollments comprising women students, relative to a national average of 45%. Moreover, there are major concerns over quality and relevance. A recent World Bank study finds that employers are most likely to reject newly graduated engineers for poor technical skills.<sup>10</sup> Across India (except MP), 74.5% of employers stated that weak technical skills was the most important reason for rejecting a job applicant; of employers in MP, 77.5% stated the same.<sup>11</sup>

7. In 2012, the Bank prepared a report 'Madhya Pradesh Higher Education Reforms: Policy Options'.<sup>12</sup> In addition to the two core challenges discussed above — access and equity — the report identifies low quality as a fundamental concern. Only about half of an incoming cohort of students graduate at the end of three years, and an even smaller percent finding employment. Transition rates of students from one year to the next, especially those from disadvantaged backgrounds, are low, with the drop-out rate being the highest between the first and the second years of study. Finally, the tendency to open colleges without a careful analysis of costs and benefits has meant that institutions are small in size, with average enrollment at 609 students (all-India average is 707). This puts a fundamental constraint on quality improvement since most institutions do not have a critical mass

---

<sup>7</sup> Ministry of Human Resources Development. 2014. *All India Survey on Higher Education 2012-13*. Provisional.

<sup>8</sup> Ibid. Unless otherwise noted, the data in this paragraph come from AISHE 2012-13.

<sup>9</sup> There are 17 state public universities, 9 state private universities, 3 institutes of national importance, 3 deemed government universities and 2 central universities; plus, there is a central open university and a state open university.

<sup>10</sup> Rudraksh, Mitra, Tara Bêteille and Toby Linden. 2015. 'Making Engineering Graduates in India Employable'. Draft. The World Bank.

<sup>11</sup> Ibid.

<sup>12</sup> World Bank. 2012.

of students (and therefore budget) or qualified faculty to offer quality education and other student services, and carry out research.

8. The first critical issues in the HE sector is Limited autonomy: The importance of autonomy in academic, financial and administrative issues has been emphasized in universities and colleges across the country repeatedly since the Kothari Education Commission (1964-66). Actual practice in MP — as in other states — shows that colleges have little autonomy in any of the matters noted above, and thereby, little control over key decisions regarding quality improvement (even when they are labelled as ‘autonomous’). Often, universities too have limited autonomy from their respective government in these matters. Every college must be affiliated to a university and such top-down control constrains the autonomy and responsiveness of colleges. Importantly, the need to seek permission from a higher entity at every stage limits faculty motivation and innovation.

9. Second, inadequate resources and inefficient systems/practices: MP’s HE system suffers from a shortage of human resources as well as financial resources. Government colleges in MP suffer from high faculty vacancy rates; nearly 30% of the 8,000 posts sanctioned by the state government were vacant in 2012.<sup>13</sup> In terms of financial resources, although the total budget on higher and technical education has more than doubled between 2009 and 2014 from US\$151.12 million to US\$313.4 million and average utilization has exceeded 100 percent over the period, project preparatory work suggests that funding will both need to increase as well as be better managed if MP is to meet its goals in HE.<sup>14</sup> Importantly, there are no clear funding mechanisms/performance-based criteria regarding central and state funding. Further, there are key shortcomings in audit systems, inadequate computerization of internal Financial Management (FM) systems and large vacancies of non-teaching staff, as a result of which much of the administrative work gets assigned to teaching staff who are already over-burdened.

10. Third, poor governance, leadership and accountability: As in most states in India, the HE system in MP is characterized by a series of governance challenges beyond the limited autonomy noted above.<sup>15</sup> First, the affiliation system has reduced the relationship between universities and affiliating colleges to a minimalistic administrative one. One consequence is that a single university with a hundred colleges or more affiliated to it imposes the same curriculum and examinations on all; individual colleges cannot adapt curricula to the needs and interests of their students. Second, there is little coordination between different state HE entities and the Department of Higher Education (DHE), between the UGC and the All India Council for Technical Education, and between colleges and universities. Fourth, quality assurance procedures are weak or non-existent. At present, less than 5 percent of colleges in MP are accredited by NAAC<sup>16</sup> despite a major push in recent years. Finally, the system is characterized by politicization, with appointments of vice-chancellors, faculty and other staff open to political influence.

11. Private HE is fairly substantial in MP. As of 2012-13, 54% of colleges and over a third of HE students in MP study at private unaided institutions which receive no financial support from the

---

<sup>13</sup> Madhya Pradesh RUSA Perspective Plan (2013-14 data).

<sup>14</sup> The INR amount was INR 7678 million in 2009 and INR 19891 million in 2014. Exchange rates of INR 50.804 per USD was used for 2009 and INR 63.469 per USD was used for 2014.

<sup>15</sup> World Bank. 2012.

<sup>16</sup> The National Assessment and Accreditation Council (NAAC) is a national statutory body that provides accreditation to HEIs and programs offered by them. Currently, only 32 HEIs in the state have an active NAAC accreditation.

GOMP.<sup>17</sup> Both the government and private HE sectors have grown rapidly in recent years; however, the core issues of quality and relevance remain concerns for both parts of the sector.

### **C. Higher Level Objectives to which the Project Contributes**

12. The Madhya Pradesh Higher Education Quality Improvement Project (MPHEQIP) supports the India Country Partnership for Strategy<sup>18</sup> 2013-17, specifically, the engagement areas relating to integration and inclusion, and with the priority to invest in low-income states. These engagement areas foresee an increase in better qualified workers to drive and sustain economic growth in India. 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. The Project will also support the implementation of the Government of Madhya Pradesh's (GOMP) vision for the HE sector as articulated in the Vision 2018 Document and the State HE Plan 2014, which focus on: (a) excellence and employability through better quality of education services offered, improved teaching-learning resources, and research (b) expanding equity and access, and (c) strengthened sector and institutional governance and financing, and management (including better monitoring and evaluation (M&E) in the sector).

## **II. PROJECT DEVELOPMENT OBJECTIVES**

### **A. PDO**

13. The development objective of the proposed project is to improve student outcomes especially of disadvantaged groups in selected higher education institutions and to increase the effectiveness of the higher education system in Madhya Pradesh.

### **B. Project Beneficiaries**

14. Project interventions will benefit all HE students enrolled in Universities and Colleges that are overseen by the DHE, their faculty, administrators and the officers of the DHE, the State Higher Education Council (SHEC), the Project Directorate (PD) which will be the main implementing agency of the project, members of Governing Bodies in Colleges and Universities, and other relevant key bodies in the HE sector. It is expected that approximately 3.6 million students, 10,800 academic staff, and 1400 administrators and officers in nearly 200 government colleges and university departments and key state entities will benefit directly from project interventions. Indirect beneficiaries will include employers (both within and outside the state) who will have a more skilled HE graduates' pool to choose from, households which can expect higher income streams in the future due to the earnings of more productive graduates, and investors who can benefit from the greater presence of higher quality human capital and research output in the state. The MPHEQIP will also contribute to filling public goods gaps in the state by strengthening the information and coordination networks between HEIs, potential and current students, administrators and employers and investors. Improving opportunities for access to good quality education, the MPHEQIP will

---

<sup>17</sup> Ministry of Human Resources Development. 2014. *All India Survey on Higher Education 2012-13*. Provisional.

<sup>18</sup> Report Number 76176-IN discussed by the Board of Directors on April 11, 2013.

contribute to more equitable distribution of HE resources to students belonging to disadvantaged groups.

### **C. PDO Level Results Indicators**

15. Progress towards meeting the PDO goals will be assessed using the following key performance indicators (KPIs):

- Number of project beneficiaries in all HEIs (% of which are female)
- On time graduation rates of undergraduate (UG) students (disaggregated by relevant socio-economic categories) at supported institutions
- Government HEIs accredited by NAAC
- Government HEIs publishing an annual report in prescribed format
- Supported HEIs satisfaction scores of beneficiaries: percentage at least satisfied (disaggregated by relevant categories)

## **III. PROJECT DESCRIPTION**

16. The MPHEQIP has three components: (i) Component 1: Grants support to HEIs for improving institutional performance along the following dimensions - excellence, equity, employability, access, and governance, (ii) Component 2: State Level Initiatives to strengthen sector governance, and (iii) Component 3: Improving System Management.

### **Component 1 – Grants Support to HEIs (Total: US\$ 387 million; IDA: US\$ 270 million)**

17. The main thrust of project will be using Institutional Grants for eligible government colleges and universities through two windows: (1): Strategic Plan Grants support to HEIs, and (2): Establishment of Centers of Excellence. The Strategic Plan Grants (Window 1) will provide financing to enable colleges and universities to pursue the goals set out in their respective Strategic Plans which will be prepared by all government colleges and university departments under the project. It is expected that through these Plans, institutions will improve institutional performance around quality in HE, equitable access and better capacity utilization, strengthened quality assurance including activities aimed at making students more employable, skills development, and strengthened institutional mechanisms for governance and management. Strategic Plans will be developed through consultations with key stakeholders, especially students and faculty, before being finalized. Centers of Excellence support (Window 2) will provide financing to a limited number of colleges and university departments for establishing best practice teaching-learning and research in a focus area. Overall, Component 1 will constitute the major bulk of funding under the project. A limit of 25% of total costs may be used for civil works. Institutions receiving funds under both windows will need to meet certain performance benchmarks in order to receive funds beyond the first instalment. An HEI can, in principle, receive support under both windows.

18. The grants provided under this component will also reinforce the system reforms under the project, e.g. (i) increased autonomy and accountability, and will help re-define the relationship between DHE and government colleges; and, (ii) pursuing NAAC accreditation to benchmark

quality, and (iii) a basis for seeking additional resources for quality improvement from national and state governments.

**Component 2: State Level Initiatives (Total: US\$ 21.50 million; IDA: US\$ 15 million)**

19. This Component supports strategic interventions to be undertaken by the state to (a) improve the system of financial support through scholarships to disadvantaged and meritorious students, (b) upgrade qualifications and skills of new and existing faculty members, (c) establish a state institute of HE training and research, and (d) extend technical assistance for strategic planning and seeking NAAC accreditation to all government HEIs.

**Component 3 – Improving system management (Total: US\$ 21.50 million; IDA: US\$ 15 million)**

20. The main objective of this component is to provide technical assistance to the DHE, the SHEC, the PD and the HEIs to strengthen their implementation capacity and sector governance and management. This component will include: (a) helping a larger number of institutions attain autonomous status that goes beyond the UGC definition of autonomy, (b) all government HEIs to prepare an annual report on performance, (c) strengthening the governance structures of government colleges with clear mandates with respect to governance and accountability, (d) fiduciary strengthening of government colleges, and (e) capacity building activities to help SHEC, the PD and the HEIs carry out project implementation smoothly.

**A. Project Financing**

21. **Lending Instrument:** The project will use an Investment Project Financing (IPF) lending instrument using a Results Based Financing (RBF) modality. Components 1 and 2 will be results-based and project funds would be disbursed against an Eligible Expenditure Program (EEP) (up to a capped amount and against achievement of agreed DLIs) under selected line items in DHE, GOMP's annual budget. Component 3 would use a traditional investment project approach with direct reimbursement of project expenditures.

**B. Project Cost and Financing**

22. The total budget for DHE for FY15/16 is about INR 17,700 million (US\$ 295 million). Maintaining these activities for the next six years will therefore cost at least US\$ 1.7 billion. Implementing additional activities as envisaged in the Vision 2018 will require an additional estimated US\$430 million. Hence, the total cost is expected to be around US\$2.1 billion. Of this, IDA will finance US\$ 300 million. The proposed project will primarily focus on the implementation of the quality improvement initiatives.

23. **Eligible Expenditure Program:** The IDA contribution will be for expenses incurred under pre-identified budget lines in the annual budget of the DHE. These pre-identified budget lines will comprise the EEPs for Component 1 and 2. The EEPs include mainly salaries and establishment costs of DHE and grants to universities and colleges for meeting salary costs of these institutions.

### Project Financing

Project Components	Project cost (US\$ millions)	IDA Financing (US\$ millions)	% Financing
1. Grant support to HEIs	387.0	270.0	70% of EEPs
2. State level initiatives	21.5	15.0	70% of EEPs
3. Improving system management	21.5	15.0	70%
<b>Total Costs</b>	<b>430.0</b>	<b>300.0</b>	
Total Project Costs	430.0		
<b>Total Financing Required</b>	300.0		
<b>GOMP Funding</b>	130.0		

### C. Lessons Learned and Reflected in the Project Design

24. The design of the project has benefited from the experience of IDA-financed HE projects in India (especially, the first two phases of the Technical Engineering Quality Improvement Project) and HE projects in other countries which have used a results-based financing modality. Specific lessons that are reflected in project design include:

- a. **Ownership and commitment to reforms are essential.** There is strong political commitment in MP towards greater efficiency and effectiveness of the HE sector. Moreover, the State’s strategic vision guiding reforms takes a long term view, thereby creating the conditions for sustained momentum for reforms and activities introduced under the project.
- b. **Using a results-based financing modality will shift the focus of investment and implementation in the HE sector away from only inputs towards development objectives.** The MPHEQIP is the first HE project in India that uses a results-based financing modality. The experience of similar projects in other countries shows that the use of DLIs is an effective way to support both system development and achievement of shorter-term equity and efficiency related results.
- c. **The project design will support the expansion of HE access to traditionally disadvantaged groups in a cost-effective manner.** Through institutional grants and scholarships, the project design will provide for greater access to higher education for girls, students belonging to the STs, and students located in rural areas, , as well as improving the utilization of existing capacity in the system to absorb more students.
- d. **The process of developing institutional grants proposals by HEIs is an effective way to build institutional capacity for planning, budgeting, M&E, and quality assurance.** This process also changes the way the state relates to the HEIs. Through self-assessments, establishment of their own priorities and accepting accountability for agreed objectives and targets, HEIs can set the ground for greater autonomy in subsequent reform phases.
- e. **Students are key stakeholders who need to be engaged throughout the project.** Students will be involved during the preparation of HEIs’ Strategic Plans. In addition, their experiences during project implementation will be closely monitored and feedback obtained through online satisfaction surveys and tracking their post-graduation experience.
- f. **Strengthening the M&E system and use of data for improving outcomes is critical for achieving the right results.** A robust M&E system coupled with mechanisms for the

independent verification of DLI achievements systematizes the need to collect good data and the use of data for improving outcomes, as well as strengthening governance mechanisms in the sector.

- g. **The project builds on the steps already underway in the state to improve system level effectiveness and efficiency.** As a result, the project design aims to build on existing synergies created by the state's own HE agenda as described in the Vision 2018 document, and the State Higher Education Plan funded in part by the Government of India through the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) scheme.

## **IV. IMPLEMENTATION**

### **A. Institutional and Implementation Arrangements**

25. The main implementing agency will be the Project Directorate (PD) which serves as the executive arm of the Madhya Pradesh SHEC, and is responsible also for managing the State's RUSA funds. The Directorate was established in October 2014 and has 18 sanctioned posts. The PD is headed by the Commissioner (HE) as its Project Director, supported by an Additional Project Director (APD), and a team of professionals (either on deputation or hired as consultants). The SHEC, created in October 2014, has overall responsibility for policy making in HE in MP. The Council is headed by the State Minister for Higher and Technical Education. SHEC will be the Steering Committee for the Project and will be responsible for approving the project's annual work plan and budget, reviewing project implementation progress and achievement of the PDO, and endorsing HEIs selected for support under the project.

26. The bulk of the activities under the proposed project will be implemented by colleges and universities. They will receive funds from the PD and will be responsible for managing the procurement to be made out of these funds. Institutions currently receive and manage funds from the state government (as well as revenues mainly generated from tuition fees). The Technical Assistance (TA) component will be used to provide targeted capacity building support for smooth implementation to both the PD and participating HEIs.

### **B. Results Monitoring and Evaluation**

27. Realistic, specific, time-bound, actionable and measurable targets have been set for the KPIs, the DLIs and the intermediate outcome indicators, in discussion with stakeholders in MP. To conform to the requirements for incorporating beneficiary feedback into the project, faculty and students satisfaction surveys will be carried out periodically. While a baseline tracer study of HE graduates in MP was completed in May 2015, given the short duration of the project, it will not be possible to measure the impact of project activities on labor market outcomes of HE graduates. However, the project will support the strengthening of linkages between the HEIs and employers, including building HEIs' capacity for tracking students' employment and wages. The project will support the evaluation of scholarship schemes and feasibility studies for continued government support to equity initiatives introduced under the project.

28. At the state level, the PD will be responsible for carrying out project M&E activities. These activities will include: (a) periodic sector and project progress reviews, (b) preparing and disseminating project progress reports (including reporting on the fiduciary and safeguards

requirements of the project), (c) reporting on DLI achievements, and (d) other studies, evaluations and reports. Third party verification of DLI achievements according to agreed protocols will be carried out timely and in alignment with the disbursement cycle. At the institutional level, supported HEIs will be responsible for reporting on agreed objectives and targets as specified in their Institutional Strategic Plans. The PD will be responsible for consolidating the M&E information according to the agreed Results Framework from all implementing agencies (supported colleges, universities, and other HE service providers). At the state level, initiatives will be the direct responsibility of the PD.

29. The project will strengthen existing state-wide data collection systems (such as the All India Survey of HE) in order that they may serve as the monitoring system for the project. It will be the responsibility of the PD to ensure that all supported HEIs and HE service providers provide regular, complete and timely information. Capacity building on M&E activities and the MIS for the DHE, the PD and supported HEIs and HE service providers will be undertaken through Component 3.

### C. Sustainability

30. Sustainability of the project will depend on the Government’s commitment to HE reforms as set out in the Vision 2018 and the State HE Plan, the fit between project activities and the long-term development objectives of the state, the technical viability of the project, and the enhanced capacity of the sector to implement the proposed project. The GOMP is already committed to taking forward the reforms described in the Vision 2018 document, and has received approval for the RUSA funded State HE Plan from the Ministry of Human Resource Development (MHRD). The project supports the state’s vision for the sector, and extends and strengthens already extant or planned initiatives by the state to achieve its sector objectives. The project’s technical design is based on the findings of a comprehensive and in-depth review of the HE sector in MP, and also incorporates lessons learned from the experiences of HE projects in other countries that use a RBF modality. Project activities have been rigorously appraised to ensure that they are viable within the local context and will lead to the desired benefits: institutional grants will help achieve better teaching-learning, more support to students and better quality research, and state level initiatives will lead to improved sector governance and management. The financial sustainability of the project investments is likely since the project will result in enhanced effectiveness of the use of government funds and institutions which are better able to raise their own resources.

## V. KEY RISKS

<b>Risk Category</b>	<b>Rating</b>
1. Political and Governance	Substantial
2. Macroeconomic	Low
3. Sector Strategies and Policies	Low
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial

6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Substantial
9. Other	NA
<b>OVERALL</b>	Substantial

### **A. Overall Risk Rating and Explanation of Key Risks**

31. The overall risk is assessed as *Substantial*. Substantial risk on “Political and Governance” is largely due to vested interests of various stakeholders. Similarly, “Stakeholders” risk is also substantial as different stakeholders have different views on some reforms (for example, autonomy) envisaged under the project. These risks will be mitigated during implementation by having frequent consultations with the government and various stakeholders. Increased technical support on governance issues will be provided during project implementation given that system governance improvements are a key part of the project. Substantial risks on Institutional Capacity and Fiduciary stem largely from currently inadequate capacity, experience and systems for implementation. These risks will be mitigated using the TA component of the project that will help in developing the necessary capacity within the PD, including hiring individual consultants for management, reporting and coordination between the various implementing entities, and for financial management and procurement. In addition, the project will promote unified procedures at the institutional level for management funds from all sources.

## **VI. APPRAISAL SUMMARY**

### **A. Economic and Financial Analysis**

32. This project will aim to improve the quality of learning, employability and research in HEIs in MP. The returns to HE, both private and societal, are large in MP, as in other countries. An economic analysis of the project yields an economic rate of return of 23.5 percent based upon a comprehensive assessment of all priced benefits and costs for which data are available. Quantifiable gains are expected to come from two key sources. First, the additional number of graduates employed, because of both higher completion and employment rates, due to the project. Second, the increased labor market premium for UG degree holders due to quality improvements and higher employability resulting from project activities. The risk of project failure is estimated to be 12.5 percent.

33. Value added of the Bank’s involvement in HE in MP is expected to come from the Bank’s global as well as local technical and operational experience in HE. The Bank has already completed a study of MP’s HE sector that combines detailed household survey data, primary data and international best practice to provide the state policy options tailored to its specific needs. A series of studies were concluded: (1) examining the impact of autonomy in selected HEIs; (2) the status and effectiveness of FM systems in the MP HE sector; and (3) a tracer study on student satisfaction and employment opportunities. The findings from these studies have been incorporated into project design and will play a key role in ensuring effective implementation by identifying mechanisms to address constraints and inefficiencies. The Bank is also engaged in providing technical assistance services in HE to other low income states, so cross-state learning will take place.

## **B. Technical**

34. The GOMP is just starting to reform its HE system. Given the challenges of such reform processes, the MPHEQIP has to balance sufficient ambition with practical steps, to ensure momentum is established and can be maintained in the face of likely hurdles. Developing capacity at the institutional level is essential both in the short term, to bring about positive change in the educational experience of students, as well as in the longer term, to create institutional diversity and pursuit of excellence.

35. The proposed grant program (Component 1) has been shown in many other countries, as well as in the Technical Education Quality Improvement projects (TEQIP) in India, to be an effective mechanism for institutional capacity building and strategic planning. This is the first time that such an ambitious strategic planning exercise (incentivized by grants) has been attempted in MP, and extensive capacity building efforts will be needed; fortunately, there is considerable experience in India in this area and the planning and grant making processes are informed by plenty of international good practice.

36. The grant mechanism by itself, however, would be fundamentally constrained by system-level structures and regulations, hence the need for some action at the state level (Component 2) and effective links between first two Components. For example, faculty appointments and terms and conditions of service, and regulations around administrative and financial autonomy, are set by the state government and government colleges are administered directly from the state capital. Radical change in these areas, in line with international practice – such as colleges making their own faculty appointments or having full administrative and financial autonomy – would be discussion items in the longer term; during the time period of the project, incremental but important changes can be pursued (such as ensuring faculty positions are filled, giving temporary faculty attractive remuneration, and providing colleges with independent governing bodies). Similarly on equity, initial action at both the institutional and state levels is needed: colleges will be expected to set targets for equitable outcomes (e.g., transition and graduation rates) and use their Strategic Plan Grants to pursue them; as good practice is identified, this can be extended across the system through other mechanisms if necessary. The state also has a role in providing scholarships to disadvantaged students. The scholarships as currently provided are intended to meet the needs of a number of different disadvantaged groups and there exists a central portal for many of the GOMP programs (though not yet those from DHE); feedback during the social assessment suggests these scholarships welcome, but inadequate in size, and the administration is fair, though cumbersome (there is no evidence of impact). The scholarships can therefore provide an effective mechanism, especially following the proposed comprehensive review; in combination with institutional level action.

37. Moreover, the strategic grant mechanism is designed to reinforce state-level priorities; especially the accreditation of colleges – a prerequisite for accessing national level funding programs. Finally, another area in which the balance between major reform and manageable steps is the financing of HE. A longer term agenda item would be an overhaul of the financing systems. The first steps in this direction, however, can be taken in this project, by ensuring that the strategic plan grants are linked to clear performance benchmarks. Using the grant mechanism to gain experience of developing benchmarks, objectively measuring performance and releasing funds only

with satisfactory performance, the GOMP can apply these lessons in due course to the broader financing landscape.

### **C. Financial Management**

38. The FM arrangements for the Project are predicated on the country systems which have been suitably bolstered, wherever necessary. These arrangements are adequate to provide reasonable assurance on the use of project funds comprising the credit proceeds and the counterpart contribution for intended purposes. FM Assessments have been conducted for the DHE, and a representative sample of HEIs receiving government grants. The review of FM arrangements reveals that the government's assistance to the HEIs are routed through the State Treasury System and therefore regular checks and balances on the receipts and expenditures exist. However, the assessment also revealed many weaknesses in the existing system such as weak financial planning with no formal medium-term planning undertaken linking policy priorities with budgetary allocation, absence of accountants in colleges and universities, inadequate delegation of financial powers to the government HEIs leading to enormous delays in budget execution, lack of uniformity in book keeping across HEIs, an almost non-existing system of internal audit in colleges and huge backlog of audits conducted by the Accountant General (MP) in government HEIs.

39. Mitigation measures have been incorporated in the project design and these are detailed in Annex 3. Some of the key measures included as DLIs are: having a full time accountant for all HEIs and operationalization of an off-the-shelf accounting software with a common chart of accounts for all HEIs. In addition, the financial management manual for HEIs includes a system of quarterly internal and annual external audits. Ninety percent of the project funds will be utilized for implementing the Institutional Strategic Plans prepared by the HEIs and approved by DHE. The Project will provide support to the HEIs for preparation of these plans. The delegation of financial powers will also be enhanced to enable smooth implementation of the Institutional Strategic Plans by the HEIs.

40. **Disbursements for Component 1 and 2** are conditional on the achievement of reform actions or results measured by the DLIs. Against Components 1 and 2, the Association will reimburse the GOMP for expenses incurred under pre-identified budget lines or EEPs in the annual budget of the DHE. The EEPs include salaries and non-procurable budget line items of the DHE, and financial assistance to HEIs to meet their salary costs. Disbursements under these Components will be made based on expenditures pertaining to the EEPs as evidenced by Interim Unaudited Financial Reports (IUFRR), upon achievement of the agreed DLI targets.

### **D. Procurement**

41. Procurement of goods and non-consulting services required for Component 3 of the project and to be financed out of the proceeds of the Credit shall be done in accordance with the requirements set forth or referred to in the Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers (January 2011), as updated in July 2014. Selection of consulting services required for Component 3 of the project and to be financed out of the proceeds of the Credit shall be done in accordance with the requirements set forth or referred to in the Guidelines: Selection and Employment of Consultants

under IBRD Loans and IDA Credits by World Bank Borrowers (January 2011), as updated in July 2014; and the provisions stipulated in the Financing Agreement.

42. A procurement capacity assessment of the DHE and some universities and colleges in MP was carried out through an Integrated Fiduciary System Review using the Procurement Risk Assessment Management System (PRAMS) Questionnaire. The major concern regarding procurement management emerging from the assessment was that the DHE at present does not have any experience of handling Bank funded projects and lacks adequate procurement experience. For the DHE as well as the HEIs, the assessment identified the following key gaps: lack of procurement planning, inadequate record keeping, insufficient capacity of procurement staff, inconsistencies in bidding process including bid evaluation, weakness in contract management and lack of formal contract oversight etc. Accordingly, the risk mitigation measures proposed for the project include preparation of a procurement manual for use by HEIs, procurement specific training for all categories of HEIs covering record keeping, Detailed Project Request (DPR) preparation, bidding process, project monitoring, contract management, etc. A detailed summary of risk mitigation measures proposed is given in Annex 3. The residual risk rating after taking into account proposed mitigation measures remains “substantial” given the lack of experience on the part of the DHE.

#### **E. Social (including Safeguards)**

43. ***Social Impacts and Application of Bank Safeguards Policies:*** The project involves limited construction activities such as establishing/upgrading higher education facilities such as colleges, hostels, library buildings, etc. These activities are not expected to cause any significant environmental or social impacts. Likely environmental and social impacts, which will be limited in nature, may include temporary construction related impacts. Compulsory land acquisition has been ruled out as an option; construction activities will be carried out on “government lands free from any encumbrances” identified and assigned for the purpose within the existing/identified institutional premises. Therefore, the Association’s safeguards policy on Involuntary Resettlement (OP/BP 4.12) has not been triggered. Some districts are inhabited by tribal communities, and this is a state-wide operation. Therefore, the Association’s safeguards policy on Indigenous Peoples (OP/BP 4.10) has been triggered.

44. ***Social Assessment and Mitigation Measures:*** GOMP has carried out a Social Systems Assessment (SSA) and prepared a Social Management Framework (SMF), which includes a Tribal Development Plan (TDP) and Gender Equity and Social inclusion (GESI) guidelines. The SMF provides that mandatory social screenings will be carried out for all activities involving civil works and cleared with the PD in order to ensure that no civil works involving any involuntary resettlement impacts will be supported by the project. The Bank team will monitor this social screening process as part of safeguards supervision through random checks and field visits. The SMF has been finalized with free, prior, informed consultation held with the primary stakeholders. The SSA was carried out using both quantitative research methodologies, including a questionnaire based survey, intensive interviews, and focus groups discussions with male and female students from various social backgrounds, including ST and SC groups, and poor and disadvantaged communities. The SSA covers a range of issues including: (i) presence of ST, SC and women and poor students in college in percentage terms, (ii) problems, disadvantages affecting academic performance of students including social and economic constraints and distance from colleges, (iii) schemes to support poor and socially disadvantaged student groups, (iv) placement services and employment

opportunities, (v) infrastructure issues, and (vi) implementation systems. Key recommendations include: additional support schemes, better infrastructure, remedial classes, etc.

45. ***Gender Equity and Social Inclusion (GESI) and Tribal Development Plan (TDP).*** The SMF has special provisions for enhancing outreach to SC, ST, women, poor, and physically challenged and vulnerable persons. Key provisions in respect of GESI and TDP in the SMF include:

- Continuation and enhancement of support schemes for ST, SC, female, and poor students;
- Promoting greater participation of students and local communities in managing campus environments; while setting up the State Institute for Higher Education Research and Training and Centres of Excellence, paying special attention to themes such as: (i) community development and social welfare, (ii) women development, (iii) social research methodology, (iv) audio-visual educational material development for physically challenged and rural students; and (v) monitoring implementation and outcomes with gender and socially segregated data;
- Carrying out studies on (i) effectiveness of existing student support schemes, (ii) meeting education needs of students in disadvantaged areas; (iii) special needs of ST and disadvantaged students; and (iv) HE needs in disadvantaged areas;
- Consultation framework to interact with experts and students (especially ST, SC, otherwise disadvantaged, and women students with special attention to disadvantaged areas) and community representatives regarding the project on a periodic basis.
- Increasing the understanding of the needs of disabled students and improving the support to and reporting on them.

46. ***Implementation Arrangements:*** The institutional arrangements will integrate professional capacity and expertise to plan and implement actions in fulfilment of the SMF. The PD will enhance its implementation capacity with hiring consultants and NGOs, if required. It will strengthen district level staff capacity to technically support, coordinate, monitor and report SMF implementation. The Bank safeguards team will work closely with the PD including through field visits and training support. The details regarding implementation have been provided in Annex-3.

## **F. Environment (including Safeguards)**

47. While the project interventions, on the whole, will have a positive impact on the HE sector of MP, specific interventions (under Component 1) envisaged under the project such as construction of new buildings/blocks and/or refurbishment/retrofitting/major repair works of existing academic blocks/laboratories/libraries/hostels may have some potential but limited adverse environmental impacts in the local context. Therefore, these activities are central to the approach and design from an environmental management and safeguards perspective for the project.

48. Environmental impacts which require attention pertain to: location; design; construction and worksite safety management; and operation/maintenance aspects of physical assets. Also, any refurbishment/repair/retrofitting works may require specific student and worker safety measures during construction if it involves removal of asbestos (which can be identified only when the civil works assessment is carried out during implementation). In view of the project's potential impacts on the environment, the Association's safeguards policies on Environmental Assessment (OP/BP 4.01) and Physical Cultural Resources (OP/BP 4.11) have been triggered, and the project is

designated as Category B. On the whole, with proper management, the project interventions are not likely to cause large scale, significant or irreversible damage to the natural, physical or social environment.

49. A limited Environmental Assessment (EA) study was undertaken by the DHE for the proposed project with guidance from the Association team. The study provides an assessment of the potential positive and negative impacts from the proposed project activities under Component 1, relevant from an environmental management and safeguards perspective. As part of the EA, the current processes, systems and capacity of the DHE from an environmental management perspective were also reviewed.

50. To effectively plan, design and integrate environmental dimensions into the overall project preparation and implementation, an Environment Management Framework (EMF) has been prepared. The framework provides guidelines for site selection, design (including that for the physically challenged), construction and maintenance of environmentally-friendly HEIs in line with relevant policy, legal and regulatory requirements of GOI, GOMP and the environment safeguard policies of the Association. The EMF has been informed by the results of a limited environment assessment (EA) exercise that was conducted by the DHE and benefits from the experiences gained from Vocational Training Improvement Project (VTIP) and TEQIP II, both currently under implementation and funded by the Association. The key elements of the EMF developed for the project include a screening exercise to identify/ascertain availability of unencumbered sites for new construction. The mitigation and management measures required to deal with temporary construction related impacts such as health and safety, labor, accident risks, dust and noise, sanitation and waste management have also been provided in the EMF. Beyond the regular environment, health and safety dimensions, the project also offers an opportunity to improve the overall environmental footprint of HEIs by creating 'green buildings' or 'greener facilities' by adopting practices of water efficiency, energy conservation, wastewater recycling and reuse. Considerations of environment, health and safety dimensions would help in ensuring the soundness and sustainability of the project and help in achieving the larger quality related objectives.

51. **Disclosure:** The EMF and SMF have been finalized and disclosed on the DHE's website and have also been disclosed on the Association's Infoshop on April 20, 2015.

## **G. World Bank Grievance Redress**

52. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/grs>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## Annex 1: Results Framework and Monitoring

### INDIA: MADHYA PRADESH HIGHER EDUCATION QUALITY IMPROVEMENT PROJECT

**Table A1.1. Monitoring Indicators (including DLIs)**

<b>Project Development Objective (PDO):</b> To improve student outcomes especially of disadvantaged groups in selected higher education institutions and to increase the effectiveness of the higher education system in Madhya Pradesh.														
PDO Level Results Indicators*	Core	Unit of Measure	Baseline 2015 (March)	Target Values**							Cumulative Targets by the Project End	Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR 1 2016	YR 2 2017	YR 3 2018	YR 4 2019	YR 5 2020	YR 6 2021					
(1) Number of project beneficiaries in all HEIs (and % of which are female)	☒	Number (%)	1,545,301 (41%)	1,558,450 (42%)	1,571,050 (43%)	1,583,650 (45%)	1,599,450 (46%)	1,615,350 (48%)	1,636,300 (48%)	3,615,200 (48%)	Annual	DHE MIS / All India Survey on Higher Education (AISHE) (University/ College records and MP RUSA perspective plan)	PD/DHE	
			Student UG: 1,289,193 (39%)	Student UG: 1,300,000 (40%)	Student UG: 1,310,000 (42%)	Student UG: 1,320,000 (44%)	Student UG: 1,332,000 (46%)	Student UG: 1,344,000 (48%)	Student UG: 1,360,000 (48%)	Student UG: 2,966,000 (48%)				
			Student Post-Graduate (PG): 248,096 (49%)	Student PG: 250,000 (50%)	Student PG: 252,000 (50%)	Student PG: 254,000 (50%)	Student PG: 257,000 (50%)	Student PG: 260,000 (50%)	Student PG: 264,000 (50%)	Student PG: 637,000 (50%)				
			Faculty: 7,112 (25%)	Faculty: 7,500 (25%)	Faculty: 8,000 (27%)	Faculty: 8,500 (29%)	Faculty: 9,200 (31%)	Faculty: 10,000 (33%)	Faculty: 10,800 (33%)	Faculty: 10,800 (33%)				
			Administrative: 900 (25%)	Administrative: 950 (25%)	Administrative: 1,050 (27%)	Administrative: 1,150 (29%)	Administrative: 1,250 (31%)	Administrative: 1,350 (33%)	Administrative: 1,400 (33%)	Administrative: 1,400 (33%)		MPHE Scholarship Portal		
												SIHETR annual reports		
												Reports on capacity building workshops and training sessions		

(2) On-time graduation rates of UG students at supported institutions (disaggregated by relevant categories)	Percent-age	31 M: 25 F: 38 SC: 26 ST: 19	33 M: 27 F: 40 SC: 28 ST: 22	35 M: 30 F: 42 SC: 31 ST: 25	37 M: 35 F: 44 SC: 33 ST: 27	40 M: 40 F: 46 SC: 35 ST: 30	45 M: 45 F: 48 SC: 37 ST: 33	50 M: 50 F: 50 SC: 40 ST: 35	50 M: 50 F: 50 SC: 40 ST: 35	Annual	DHE MIS / AISHE (University/ College records and MPHE admissions portal for the baseline)	PD/DHE
(3) Govt. HEIs accredited by NAAC	Number	37	55	75	115	155	175	200	200	Annual	NAAC Accreditation Reports, DHE.	PD/DHE
(4) Govt. HEIs publishing an annual report in prescribed format (DLI)	Percent-age	0	30	40	45	50	60	70	70	Annual	Reported by the DHE	PD/DHE
(5) Supported HEIs Satisfaction scores of beneficiaries: percentage at least satisfied (disaggregated by relevant categories) <sup>19</sup>	Percent-age	Students: TBD Faculty: TBD. Employers: 73	Students: 60 Faculty: 60 Employers: 60	Students: 65 Faculty: 65	Students: 70 Faculty: 70 Employers: 70	Students: 75 Faculty: 75	Students: 80 Faculty: 80 Employers: 80	Students: 80 Faculty: 80 Employers: 80	Students: 80 Faculty: 80 Employers: 80	Annual	Satisfaction surveys administered to students, faculty and HEI administrators, commissioned by the RUSA PD	PD/DHE
<b>INTERMEDIATE RESULTS</b>												
<b>Components 1 and 2</b>												

<sup>19</sup> Baseline will be finalized by March 2016 after the first pilot survey is completed.

(6) Capacity Utilization in Government HEIs		Percent-age	73	75	77	80	85	90	90	90	Annual	DHE MIS / AISHE (University/College records and MPHE admissions portal for the baseline)	PD/DHE
(7) UG enrollment in first year in HEIs (DLI)		Number	293,000	303,000	313,000	323,000	333,000	343,000	353,000	353,000	Annual	College records from registrar of affiliating universities; Data to be collected at a disaggregated level (Female; SC; ST; Differently abled)	PD/DHE
(8) PG enrollment in first year in HEIs		Number	64,250	66,250	68,250	70,250	72,250	74,250	77,250	77,250	Annual	College records from registrar of affiliating universities; Data to be disaggregated (Female; SC; ST; Differently abled)	PD/DHE
(9) Transition rate of UG students from first to second year in supported HEIs (DLI) (disaggregated by disadvantaged groups)		Percent-age	27 M: 19 F: 38 SC: 21 ST: 10	33 M: 27 F: 40 SC: 24 ST: 12	35 M: 30 F: 42 SC: 27 ST: 14	38 M: 35 F: 44 SC: 30 ST: 16	41 M: 40 F: 46 SC: 33 ST: 18	45 M: 45 F: 48 SC: 37 ST: 21	60 M: 60 F: 60 SC: 45 ST: 25	60 M: 60 F: 60 SC: 45 ST: 25	Annual	DHE MIS /AISHE (University/College records and MPHE admissions portal for the baseline); Data to be collected at a disaggregated level (Female; SC; ST; Differently abled)	PD/DHE

(10) Government Institutions receiving Grants Support		Number	Colleges: 0 COEs: 0	Colleges: 75 COEs: 25	Colleges: 75 COEs: 50	Colleges: 150 COEs:50	Colleges: 150 COEs: 50	Colleges: 150 COEs: 50	Colleges: 200 COEs: 50	Colleges: 200 COEs: 50	Annua l	Reported by the DHE	PD/DH E
(11) Colleges granted Autonomou s Status		Number	19	22	25	30	35	40	50	50	Annua l	Reported by the DHE along with UGC review committee reports. Data to be disaggregated by institutional type (government, aided and private)	PD/DH E
(12) Faculty in position in Govt HEIs according to norms in Government HEIs (DLI)		Percent- age	57	65	75	85	85	90	90	90	Annua l	DHE MIS	PD/DH E
(13) Financial support to disadvantag ed students in any HEI in MP (DLI)		Number	71,800 <sup>20</sup>	Review of the existing DHE scheme for the provision of financial support to disadvant aged students.	74,800	77,800	80,800	80,800	80,800	80,800	Annua l	DHE MIS / Scholarship Portal (University / College records and DHE scholarship division for the baseline). Data to be disaggregated by institutional type (government,	PD/ DHE

<sup>20</sup> Baseline does not include the data on free books for SC/ST.

												aided and private)	
(14) Occupancy rate in new DHE hostels for girls (DLI)		Percentage	0	0	0	25	50	75	90	90	Annual	Reported by the DHE	PD/DHE
(15) Leadership and Management Training Programs of HE Personnel coordinated by SIHETR		Number	0	100	100	100	100	100	100	600	Annual	SIHETR Annual Reports	PD/DHE
(16) HEIs Faculty trained in relevant areas coordinated by SIHETR		Number	0	4000	8000	8000	8000	8000	8000	44000	Annual	SIHETR Annual Reports	PD/DHE
(17) Govt. HEIs that have common accounting software with uniform Chart of Accounts, and full-time accountant position sanctioned and filled with qualified		Percentage	0	23	50	75	100	100	100	100	Annual	RUSA PD to assess compliance and report the number of audit responses received	PD/DHE

individual (DLI)													
(18) Number of government colleges with strengthened governance structures (DLI)	Number	0	0	25	60	150	320	400	400	400	Annual	HEI Annual Reports	
(19) Supported Government HEIs responding to outstanding audit observations within a year	Percentage	n.a.	50	75	100	100	100	100	100	100	Annual	Reported by the DHE	PD/DHE
(20) Grant-supported HEIs tracking graduates up to six months from the date of completing course of study through functional placement cells (DLI)	Number	0	--	50	100	130	150	175	175	175	Annual	HEI Annual Reports	PD/DHE
(21) New hostels for HEI students including	Number	0	-	5	10	15	20	25	25	25	Annual	Reported by the DHE	PD/DHE

disadvantaged groups													
(22) Buildings for existing building-less Government colleges catering to primarily female or ST students	Number	0	-	5	10	15	20	25	25	25	Annual	Reported by the DHE	PD/DHE
<b>Component 3: Improving System Management</b>													
(23) Establishment and utilization of M & E system (including IT portal)	Text	-	-	Functional	Functional	Functional	Functional	Functional	Functional	Functional	Annual	Reported by the DHE	PD/DHE
(24) Full-time Staff in the PD	Number	5	18	18	18	18	18	18	18	18	Annual	Reported by the DHE	PD/DHE
(25) Student and Faculty Satisfaction Surveys in supported HEIs	Text	0	Pilot Student and Faculty Satisfaction survey	--	2 <sup>nd</sup> Students and Faculty satisfaction Survey; First Employers' Survey		3 <sup>rd</sup> Students and Faculty satisfaction Survey	4 <sup>th</sup> Students and Faculty satisfaction survey; Second Employers Survey			Annual	PD/DHE	PD/DHE
(26) Government Institutions providing complete AISHE data	Number	270	300	400	400	400	400	400	400	400	Annual	AISHE	AISHE

Note: For the purposes of reporting to Bank management, all PDO level indicators and only the following seven intermediate outcome level indicators will be used in the Implementation Status and Results Report:

- (1) Transition rate of UG students from first to second year in supported HEIs
- (2) Faculty in position in Govt HEIs according to norms in Government HEIs
- (3) Financial support to disadvantaged students in any HEI in MP
- (4) Number of government colleges with strengthened governance structures
- (5) Full-time Staff in the PD
- (6) Student and Faculty Satisfaction Surveys in supported HEIs
- (7) Government Institutions providing complete AISHE data

**Table A1.2. Definitions and Description of Monitoring Indicators**

PDO Level Results Indicators*	Description (indicator definition etc.)
(1) Number of project beneficiaries in all HEIs (and % of which are female)	<p>(i) The number of students enrolled and teachers and administrators employed in all HEIs in MP.</p> <p>Baseline percentages of female beneficiaries are based on the MP RUSA perspective plan. Target percentages of female student beneficiaries are based on the sex ratio in the relevant population (18-23). Target percentage of female faculty/administrators is 33%, equal to the reservation for females in certain legislative/self-government bodies.</p> <p>The target number of student beneficiaries is based on projected increases in enrolment.</p> <p>Student cumulative figure is calculated by adding the number of new enrolments each year to the total number of student beneficiaries in the baseline.</p> <p>The baseline number of faculty in government HEIs is from the MP RUSA perspective plan. A teacher or administrator is employed if they have a regular position.</p> <p>The number of administrative staff is based on an assumption of 2 per college and 5 per university. These totals refer to the number of faculty and administrators that receive training and participate in various capacity building workshops.</p>
(2) On-time graduation rates of UG students at supported institutions (disaggregated by relevant categories)	<p>Percentage of students admitted in year (t-3) that pass the final year examinations in year (t). Admitted refers to students who have paid the fees for joining a college by September of the academic year.</p> <p>University and college records along with data from the MPHE admissions portal have been used to determine a baseline value. The project activities include setting up a MPHE MIS as well as requiring all HEIs to complete the annual AISHE surveys. For subsequent years, these data will be used.</p>
(3) Govt. HEIs accredited by NAAC	<p>Number of Govt. HEIs, receiving UGC/NAAC accreditation and those submitting a letter of intent and a self-study report to UGC/NAAC for NAAC.</p>
(4) Govt. HEIs publishing an annual report in prescribed format (DLI)	<p>Percentage of institutions that publish an annual report in the format to be developed by the PD and DHE, including data on a set of prescribed indicators. These prescribed indicators may change over time. Publication means, at least, displaying on the respective institution's website.</p>
(5) Supported HEIs satisfaction scores of beneficiaries: percentage at least satisfied (disaggregated by relevant categories)	<p>Baseline is available only for employers and is based upon an all-India employer satisfaction survey conducted by the World Bank and FICCI in 2014, oversampling for MP.</p>

	<p>Baseline survey for student and faculty satisfaction will be completed by March 2016.</p> <p>In subsequent years, satisfaction levels of students, Faculty (including HEI administrators) will be assessed based on sample surveys commissioned by the PD, with subsamples for females and the marginalized (SC, ST and OBC) beneficiary population.</p>
<b>Intermediate Results Indicators</b>	<b>Description (indicator definition etc.)</b>
<b>Component 1: Grants Support to HEIs</b> <b>Component 2: State level Initiatives</b>	
(6) Capacity Utilization in Government HEIs	<p>Percentage of sanctioned seats offered to first year students filled by newly admitted students in year t. Admitted refers to students who have paid the fees for joining a college by September of the academic year.</p> <p>University and college records (registrar's data) along with data from the MPHE admissions portal will be used to determine a baseline value. The project activities include setting up a DHE MIS as well as requiring all HEIs to complete the annual AISHE surveys. For subsequent years, these data will be used.</p>
(7) UG enrollment in first year in HEIs (DLI)	<p>Enrolment is defined as the number of students who have paid their admission fees for joining any regular HEI in a degree program at the UG level by September 1 of the respective academic year in HEIs with buildings.</p> <p>The data is sourced from registrars of affiliating universities, based on an aggregation of university and college records.</p>
(8) PG enrollment in first year in HEIs	<p>Enrolment is defined as the number of students who have paid their admission fees for joining any regular HEI in a degree program at the PG level by September 1 of the respective academic year in HEIs with buildings.</p> <p>The data is sourced from registrars of affiliating universities, based on an aggregation of university and college records.</p>
(9) Transition rate of UG students from first to second year in supported HEIs (disaggregated by relevant categories) (DLI)	<p>Percentage of students admitted in the first year in year (t-1) that are enrolled in the second year in year (t) who clear all subjects at first attempt, disaggregated into females, SCs and STs.</p> <p>The data is sourced from registrars of affiliating universities, based on an aggregation of university and college records</p>
(10) Government Institutions receiving Grants Support	<p>Number of Government institutions receiving Grant support under the project.</p> <p>To be reported by PD/ DHE</p>
(11) Colleges granted Autonomous Status	<p>To be reported by the DHE in its annual report based on the grant of UGC autonomy. While the project will evolve a broader definition of autonomy based on guidelines and regulations developed by the DHE, the grant of UGC</p>

	autonomy will be the minimum requirement for an HEI to be considered autonomous.
(12) Faculty in position according to norms in Government HEIs (DLI)	Percentage of sanctioned faculty posts at each level (Assistant Professor, Associate Professor and Professor) that is filled by regular faculty disaggregated into posts reserved for females, residents of MP or SC/ST.
(13) Financial support to disadvantaged students to any HEI in MP (DLI)	Number of financial support benefits awarded to students. Disadvantaged groups include SC, ST, and women.  The baseline has been established from the DHE annual report for 2013-14. . In subsequent years, DHE provided financial support data to the HE Scholarship Portal will be used.
(14) Occupancy rate in new DHE hostels got girls	Capacity utilization in new DHE hostels built with project support for female students
(15) Leadership and Management Training of HE Personnel coordinated by SIHETR	Number of participants in the training programs, reported in the SIHETR annual report. Verified by reviewing reports from training sessions and through participant surveys.
(16) HEIs faculty trained in relevant areas coordinated by SIHETR	Number of faculty participating in training programs, reported in the SIHETR annual report. Verified by reviewing reports from training sessions and through participant surveys.  The cumulative target is based on training at least 75% of existing faculty in government HEIs by 2020.
(17) Govt. HEIs with strengthened FM systems in Colleges (DLI)	Upgraded FM system means that an HEI has submitted audit reports generated by computerized accounting system and a standard Chart of Accounts as notified by DHE. All sanctioned posts of accountants for Government HEIs filled sanctioned positions with a qualified individual on a full-time basis.
(18) Number of government colleges with strengthened governance structures	The government will issue a Government Order for the strengthening of the governance of government colleges. This Order will include the composition of a body (whether restructuring of existing governance structures or establishment of new structures) with overall responsibility for the strategic direction and accountability of the college. The membership of the body may vary from different categories of colleges, but consists of a group of independent members comprising representatives from different stakeholder groups whose goal is to ensure the HEI meets its objectives of teaching, learning and research. The composition is expected to be such that government nominees will be in the minority, those from the institution about half and independent members the remainder. The independent members are selected by the BOG; one of whom will be chosen by the members as its Chair. The Government Order will also lay out increased delegation of powers to the colleges, over financial, management, administrative and academic issues.
(19) Supported Government HEIs responding to outstanding audit observations within a year	Percentage of Institutions responding to outstanding audit observations within a year.
(20) Grant-support HEIs tracking graduates up to six months from the completion of course of study through functional placement cells (DLI)	Percentage of HEIs supported through grant support including COEs that publish the findings of Alumni

	Tracking conducted by placement cells in their annual reports.
(21) New hostels for HEI students including disadvantaged groups	Number of new hostels catering to HEI students including disadvantaged groups.  To be reported by PD/ DHE
(22) Buildings for existing building-less Government colleges catering to primarily female or ST students	Number of buildings constructed for existing building-less Govt. colleges catering to primarily female or ST students.
<b>Component 3: Program Management, Technical Assistance, Monitoring and Evaluation</b>	
(23) Establishment and utilization of M & E system (including IT portal)	(i) All HEIs capable of generating all the data points required for the AISHE Data Capture Formats, and meeting the data verification protocols of AISHE.  (ii) Institutions to complete the AISHE survey and publish data on selected indicators in their annual reports.  (iii) DHE and the PD to prepare annual reports.
(24) Full-time staff in the PD	(i) PD to have all sanctioned posts filled and to employ long-term consultants in the areas of monitoring, statistics, policy analysis, FMP.  The PD should also have a supervising engineer.  (ii) The PD to publish monthly minutes of meetings and consultations held.
(25) Student , Faculty and Employers' Satisfaction Surveys conducted in supported HEIs	(i) Four rounds of student and faculty (including HEI administrators) satisfaction survey conducted over the project period. Each survey to be conducted before the start of the academic year.  (ii) Two rounds of employers' satisfaction survey conducted over the project period.
(26) Government Institutions providing complete AISHE data	Number of Government HEIs providing complete AISHE data.

**INDIA: MADHYA PRADESH HIGHER EDUCATION QUALITY IMPROVEMENT PROJECT**

**Table A1.3. Disbursement Linked Indicators**

DISBURSEMENT-LINKED INDICATORS		DISBURSEMENT-LINKED TARGETS					
		TARGETS TO BE ACHIEVED IN FY2015/16 (YEAR 1)	TARGETS TO BE ACHIEVED IN FY2016/17 (YEAR 2)	TARGETS TO BE ACHIEVED IN FY2017/18 (YEAR 3)	TARGETS TO BE ACHIEVED IN FY2018/19 (YEAR 4)	TARGETS TO BE ACHIEVED IN FY2019/20 (YEAR 5)	TARGETS TO BE ACHIEVED IN FY2020/21 (YEAR 6)
1. Increase in enrolment of full-time first year undergraduate students in degree programs in HEIs		None	10,000 students over the baseline	10,000 students over Year 2	10,000 students over Year 3	10,000 students over Year 4	10,000 students over Year 5
<i>DLI Values</i>		None	\$1,500,000 per batch of 2,500 students up to a maximum of \$6,000,000	\$1,500,000 per batch of 2,500 students up to a maximum of \$6,000,000	\$1,500,000 per batch of 2,500 students up to a maximum of \$6,000,000	\$1,500,000 per batch of 2,500 students up to a maximum of \$6,000,000	\$1,500,000 per batch of 2,500 students up to a maximum of \$6,000,000
2. Improving equity in higher education	2(a) Support to disadvantaged students to complete degree programs at HEIs	Consultancy contract signed for a review of the existing DHE scheme for the provision of financial support to students to assist with the costs of attending HEIs	3,000 Financial Support Benefits granted to disadvantaged students over the baseline in accordance with the revised DHE scheme	3,000 Financial Support Benefits granted to disadvantaged students over Year 2 in accordance with the revised DHE scheme	None	None	None
<i>DLI Values</i>		\$4,000,000	(i) \$4,000,000 for the first 2,000 Financial Support Benefits; and (ii) thereafter \$1,000,000 per batch of 500 Financial Support Benefits, up to a maximum of \$6,000,000	(i) \$4,000,000 for the first 2,000 Financial Support Benefits; and (ii) thereafter \$1,000,000 per batch of 500 Financial Support Benefits, up to maximum of \$6,000,000	None	None	None
	2(b) Increase in Transition Rate of Disadvantaged Students	None	None	Increase of 3 percentage points over baseline	Increase of 3 percentage points over Year 3	Increase of 3 percentage points over Year 4	Increase of 3 percentage points over Year 5

DISBURSEMENT-LINKED INDICATORS		DISBURSEMENT-LINKED TARGETS					
		TARGETS TO BE ACHIEVED IN FY2015/16 (YEAR 1)	TARGETS TO BE ACHIEVED IN FY2016/17 (YEAR 2)	TARGETS TO BE ACHIEVED IN FY2017/18 (YEAR 3)	TARGETS TO BE ACHIEVED IN FY2018/19 (YEAR 4)	TARGETS TO BE ACHIEVED IN FY2019/20 (YEAR 5)	TARGETS TO BE ACHIEVED IN FY2020/21 (YEAR 6)
<i>DLI Values</i>		None	None	(i) \$6,000,000 for an increase of 2 percentage points; and (ii) thereafter \$1,000,000 per increase of 0.5 percentage points, up to a maximum of \$8,000,000	(i) \$6,000,000 for an increase of 2 percentage points; and (ii) thereafter \$1,000,000 per increase of 0.5 percentage points, up to a maximum of \$8,000,000	(i) \$6,000,000 for an increase of 2 percentage points; and (ii) thereafter \$1,000,000 per increase of 0.5 percentage points, up to a maximum of \$8,000,000	(i) \$6,000,000 for an increase of 2 percentage points; and (ii) thereafter \$1,000,000 per increase of 0.5 percentage points, up to a maximum of \$8,000,000
	2(c) Occupancy of Hostels	None	None	None	At least 20% of student residents of Hostels at Government HEIs are Scheduled Tribe, and at least 15% of student residents of Hostels at Government HEIs are Scheduled Caste	Occupancy Rate is 75% on average across all new female-only Hostels at Government HEIs opened since baseline established	None
<i>DLI Values</i>		None	None	None	\$9,000,000	\$3,000,000	None
3. Excellence and quality assurance	3(a) Improved institutional performance of selected HEIs	(i) 150 Memoranda of Understanding signed with Government HEIs for Strategic Plan Grants  (ii) Approval received from DHE and the Association of final design and specifications for major civil works for new infrastructure at Government	Mobilization advance released for at least 70% of major civil works contracts for infrastructure at Government HEIs in accordance with Project Implementation Plan	Funds only provided to HEIs for Strategic Plan Grants if the HEIs have received satisfactory performance assessments in accordance with Project Implementation Plan	Completion certificate received from third party quality assurance engineer for at least 70% of major civil works contracts for infrastructure at Government HEIs in accordance with Project Implementation Plan	Funds only provided to HEIs for Strategic Plan Grants if the HEIs have received satisfactory performance assessments in accordance with Project Implementation Plan	None

DISBURSEMENT-LINKED INDICATORS		DISBURSEMENT-LINKED TARGETS					
		TARGETS TO BE ACHIEVED IN FY2015/16 (YEAR 1)	TARGETS TO BE ACHIEVED IN FY2016/17 (YEAR 2)	TARGETS TO BE ACHIEVED IN FY2017/18 (YEAR 3)	TARGETS TO BE ACHIEVED IN FY2018/19 (YEAR 4)	TARGETS TO BE ACHIEVED IN FY2019/20 (YEAR 5)	TARGETS TO BE ACHIEVED IN FY2020/21 (YEAR 6)
		HEIs in accordance with Project Implementation Plan					
<i>DLI Values</i>		For (i): (1) \$20,000,000 for 100 signed Memoranda of Understanding ; and (2) thereafter \$2,000,000 per batch of 10 signed Memoranda of Understanding , up to a maximum of \$30,000,000  For (ii): \$3,000,000	\$3,000,000	\$14,000,000	\$14,000,000	\$14,000,000	None
	3(b) Faculty		Faculty In-Position Rate in Government HEIs is on average greater than 75%	Faculty In-Position Rate in Government HEIs is on average greater than 85%	None	None	None
<i>DLI Values</i>			\$15,000,000	\$15,000,000	None	None	None
	3(c) NAAC accreditation	None	At least 40 Government HEIs send a letter of intent and a self-study report to UGC/NAAC for NAAC accreditation, of which at least 30 are First Cycle Applications	None	At least an additional 80 Government HEIs over Year 2 send a letter of intent and a self-study report to UGC/NAAC for NAAC accreditation, of which at least 70 are First Cycle Applications	None	None
<i>DLI Values</i>		None	\$13,000,000	None	\$13,000,000	None	None

DISBURSEMENT-LINKED INDICATORS		DISBURSEMENT-LINKED TARGETS					
		TARGETS TO BE ACHIEVED IN FY2015/16 (YEAR 1)	TARGETS TO BE ACHIEVED IN FY2016/17 (YEAR 2)	TARGETS TO BE ACHIEVED IN FY2017/18 (YEAR 3)	TARGETS TO BE ACHIEVED IN FY2018/19 (YEAR 4)	TARGETS TO BE ACHIEVED IN FY2019/20 (YEAR 5)	TARGETS TO BE ACHIEVED IN FY2020/21 (YEAR 6)
4. Improving employability of higher education students		None	50 HEIs receiving Strategic Plan Grants record Tracking Information for at least 70% of graduating undergraduate and post-graduate students for at least 6 months following the date of completion of their course of study	None	An additional 80 HEIs over Year 2 receiving Strategic Plan Grants record Tracking Information for at least 70% of undergraduate and post-graduate graduating students for at least 6 months following the date of completion of their course of study	None	None
<i>DLI Values</i>		None	(i) \$3,000,000 for the first 30 HEIs; and (ii) thereafter \$1,000,000 per batch of 10 HEIs, up to a maximum of \$5,000,000	None	(i) \$3,000,000 for 60 additional HEIs; and (ii) thereafter \$1,000,000 per batch of 10 HEIs, up to a maximum of \$5,000,000	None	None
5. Strengthening sector governance	5(a) Improving sector-wide governance and management	Government Order issued by DHE for the delegation of powers from DHE to principals of Government HEIs	None	None	None	None	None
<i>DLI Values</i>		\$9,000,000	None	None	None	None	None
	5(b) Publication of Government HEI annual reports	None	20 Government HEIs publish an annual report in accordance with DHE guidelines	None	300 Government HEIs publish an annual report in accordance with DHE guidelines	None	300 Government HEIs publish an annual report in accordance with DHE guidelines

DISBURSEMENT-LINKED INDICATORS		DISBURSEMENT-LINKED TARGETS					
		TARGETS TO BE ACHIEVED IN FY2015/16 (YEAR 1)	TARGETS TO BE ACHIEVED IN FY2016/17 (YEAR 2)	TARGETS TO BE ACHIEVED IN FY2017/18 (YEAR 3)	TARGETS TO BE ACHIEVED IN FY2018/19 (YEAR 4)	TARGETS TO BE ACHIEVED IN FY2019/20 (YEAR 5)	TARGETS TO BE ACHIEVED IN FY2020/21 (YEAR 6)
<i>DLI Values</i>		None	\$3,000,000	None	(i) \$2,000,000 for the first 100 Government HEIs; and (ii) thereafter \$1,000,000 per batch of 100 Government HEIs, up to a maximum of \$3,000,000	None	(i) \$2,000,000 for the first 200 Government HEIs; and (ii) thereafter \$1,000,000 per batch of 100 Government HEIs, up to a maximum of \$3,000,000
	5(c) Strengthening of governance structure of government colleges	Government Order issued by DHE regarding strengthening the governance structure of government colleges	None	Governance structure of 60 government colleges is strengthened in accordance with Government Order	None	Governance structure of 75% of government colleges is strengthened in accordance with Government Order	None
<i>DLI Values</i>		\$9,000,000	None	\$9,000,000	None	(i) \$6,000,000 for 60% of government colleges; and (ii) thereafter \$1,500,000 per additional 5 percentage points, up to a maximum of \$9,000,000	None
6. Fiduciary strengthening of Government HEIs		None	None	At least 100 Government HEIs upgrade their financial management system in accordance with guidelines set forth in the Project Implementation Plan	95% of Government HEIs upgrade their financial management system in accordance with guidelines set forth in the Project Implementation Plan	None	None
<i>DLI Values</i>		None	None	\$3,000,000	\$3,000,000	None	None

**MP Higher Education Quality Improvement Project**  
**Table A1.4: DLI Matrix – Verification Protocol**

**Notes:**

1. Except where noted in the table below, all DLIs can be met early or carried forward if not met in the targeted year.
2. Where a third party verification is indicated in the table below, this is to be conducted by an independent verification agent contracted by the Project Directorate in accordance with the World Bank’s Consultant Guidelines and carried out in accordance with terms of reference agreed with the Association and included in the PIP.

<b>Disbursement-Linked Indicator</b>	<b>Verification</b>
<p>DLI 1: Increase in enrolment of full-time first year undergraduate students in degree programs in HEIs</p>	<p><i>Definition</i>            Enrolment is defined as the number of full-time students who have paid their admission fees for joining any registered HEI for the first year in a degree program at the UG level by September 1 of the respective academic year. Baseline is the figure for September 2014; Year 2 (FY 2016/17) target is for September 2016.</p> <p>Funding for DLI 1 can be carried forward, meaning if 5,000 additional students are enrolled in FY2016/17 (September 2016) over the baseline, then \$3m will be paid. The remaining \$3m and 5,000 students will be carried forward. This means in FY17/18 that \$9m will be available and so up to an additional 15,000 students (i.e., enrolled in September 2017) over the FY16/17 figure can be counted.</p> <p>DLIs may not be met early.</p> <p><i>Source</i>            Letter from DHE with breakup by HEI of aggregate new enrolment in the first year of UG programs in all HEIs; MPHE admissions portal database.</p>
<p>DLI 2: Improving equity in higher education</p> <p>2(a) Support to disadvantaged students to complete degree programs at HEIs</p>	<p><i>Definition:</i> For the purposes of the review (DLI for Year 1), financial support refers to scholarships administered by DHE to students studying in HEIs, those administered by other Departments for HE students, and support provided by colleges and universities from their own funds. Disadvantaged groups include SC, ST, female and physically disabled students, and students whose last place of residence prior to joining the HEI was in a rural area. Review of financial support will be conducted based upon ToRs developed by the PD in consultation with the World Bank as specified in the PIP. Initiation of the review is defined as signing a contract reflecting the above ToRs with a qualified individual/ firm.</p> <p>For the purposes of the DLIs for Years 2 and 3, financial support refers only to financial support funded by DHE and includes those increases from enrollment. Disadvantaged groups include only SC, ST, and female students. The revised DHE scheme for financial support will be based upon one-time incorporation of financial support review recommendations from the review conducted in Year 1. All financial support is to be awarded as per the revised DHE scheme. Baseline is the figure for 2015/16 as determined by the review.</p>

	<p>In Years 2 and 3, an individual student may get more than one financial support benefit and for the purposes of these DLIs, each benefit (e.g. scholarship or reduced housing costs) will be counted (so that, for example, 10 students each receiving 2 scholarships will count for 20 financial support benefits when considering this DLI).</p> <p>Year 3 target may only be met after Year 2 target has been met, as Year 3 target is additional to Year 2 target.</p> <p><i>Source:</i> For study initiation, DHE will provide a copy of the signed contract and evaluation committee report as described above.</p> <p>On financial support, letter from the DHE providing data on financial support funded by DHE, and disaggregated by disadvantaged group. Third party verification required.</p>
<p>2(b) Increase in Transition Rate of disadvantaged students</p>	<p><i>Definition:</i> Transition rate from first to second year is defined as: Percentage of students assigned an enrolment number in the first year in the previous academic year who pass all first year exams, at the first attempt, in the previous academic year. Transition rate pertains to a full-time student enrolled in a degree program at the UG level. Each DLI target refers to an increase over the previous year. Disadvantaged groups include SC, ST and female students. Baseline is examinations taken at the end of 14/15 academic year. Year 3 (FY17/18) target will be for examinations at end of 16/17 academic year; and similarly for targets for Years 4, 5 and 6.</p> <p>Targets cannot be met early or late.</p> <p><i>Source:</i> On transition rates, DHE letter showing transition rate from first to second year, broken down by institution and student characteristics (female, ST, SC), specifying ATKT; scholarships portal; annual report of all HEIs. Third party verification required.</p>
<p>2 (c) Occupancy of Hostels</p>	<p><i>Definition:</i> Occupancy rate refers to the percentage of existing, approved capacity that is utilized by a student enrolled full-time to reside, as at 1 September of the relevant year. The student should be enrolled in a full-time program in a recognized Government HEI at the UG or PG level. For 2018/19 (Year 4), occupancy to be measured as at September 2018; similarly for 2019/20 (Year 5). All hostels that were open at the start of the academic year in question are to be counted. For female-only hostels, baseline is as of March 31, 2015.</p> <p>Targets cannot be met early or late.</p> <p><i>Source:</i> On hostel occupancy rate, DHE to provide list of hostels with their respective occupancy rates. Third party verification required.</p>
<p>DLI 3: Excellence and quality assurance</p> <p>3(a) Improved institutional performance in selected HEIs</p>	<p><i>Definition:</i></p> <p><i>For Year 1 target (part (i)):</i> Grant-supported HEIs are those provided Strategic Plan Grants under Component 1. MoUs should include the signature of the head of the HEI's governing body (where a governing body exists) and the Principal of the respective HEI.</p> <p><i>For Years 3 and 5 targets:</i> Once the institutes are selected, the indicators to monitor satisfactory performance will be determined jointly between DHE, the Association and selected HEIs. All HEIs will be expected to meet a core set of</p>

	<p>indicators which will be incorporated in the PIP. HEI-specific indicators will be set out in the MOUs of the respective HEIs. The PIP will also define what a satisfactory rating entails. Performance assessment will be undertaken by DHE as per a pre-determined protocol defined in the PIP. Disbursement will be based upon satisfactory application of the protocol. As an example, if 80 percent of institutions have a performance assessment as per protocol with only 5 found satisfactory, and DHE releases funds only to these 5 HEIs, the DLI will be achieved for that year and DHE will be eligible to receive the entire DLI value allocated for that year (and not just funds for the 5 HEIs that qualify). Target for FY 17/18 (Year 3) will relate to the releases made during FYs 15/16 (if any) and 16/17. Target for FY19/20 (Year 5) will relate to releases made during FYs 17/18 and 18/19 (if any).</p> <p><i>For Year 1 target (part (ii)):</i> For civil works designs and specifications, these will be subject to approval of the Association with respect to environment and social issues, including compliance with the EMF and SMF. These are designs and specifications for new buildings as agreed with the Association (academic buildings for colleges without buildings and student hostels). The DHE will have to provide evidence that they have submitted the designs to any agency (such as the Public Works Department (PWD) or an HEI) which will be contracting for the civil works.</p> <p><i>For Years 2 and 4 targets:</i> Civil works will include all civil works above the value threshold/limit set out in the PIP (so this will include some minor civil works such as renovations and upgrading). The DHE and the HEIs will prepare procurement plans, which will include a list of all the civil works (new buildings and minor civil works) contracts.</p> <p>Targets for Years 3 and 5 cannot be met early or late.</p> <p><i>Source:</i> For Years 1, 3 and 5: Letter from DHE with signed MoU copies; letter from DHE with progress report for each institution against the performance indicators as defined in the PIP and MOUs. Third party verification required.</p> <p>For Years 1, 2 and 4: Third party agency report based on sample of colleges. Third party verification required.</p>
3(b) Faculty	<p><i>Definition:</i> Faculty in-position rate refers to the percentage of sanctioned positions for full-time faculty (i.e., guest faculty do not count in this definition even if they are appointed against sanctioned posts) that are filled. It pertains to regular staff in government HEIs.</p> <p><i>Source:</i> For faculty in-position rate, letter from DHE listing status of faculty vacancy rates in each HEI; AISHE. Third party verification required.</p>
3(c) NAAC Accreditation	<p><i>Definition:</i> NAAC Accreditation refers to the UGC-led institution-level accreditation process for HEIs. Letters of intent (LOI) and self-review reports (SSR) are determined as per prevailing UGC/NAAC guidelines. Additionally in FY 19 is the increment over FY 17. As per NAAC guidelines, when an institution undergoes the accreditation process for the first time it is referred to as Cycle 1 and the consecutive five year periods as Cycles 2, 3, etc.</p> <p><i>Source</i></p>

	Letter from DHE with a table providing a list of HEIs with their status of NAAC accreditation (LOI/SSR submission/grade) for those used to verify achievement of DLI; NAAC website.
DLI 4: Improving employability of higher education students	<p><i>Definition:</i> Tracking of students means to have up to date contact information (mobile phone and/or email address) and status (employment, unemployed, in formal education or training, not in the labor market/other). Tracking for six months should be considered from the end of the academic year when the student passed out (graduated). Both UG and PG students should be tracked. Target for FY 16/17 is for graduates at the end of the 15/16 academic year. Target for FY 18/19 is for graduates at the end of the 17/18 academic year.</p> <p><i>Source:</i> Third party verification required. Verification agency to visit a sample of institutions and use the institutional database to contact those graduates who have been tracked; and to identify number of students who have passed out in the previous year.</p>
DLI 5: Strengthening sector governance  5(a) Improving sector-wide governance and management	<p><i>Definition:</i> Government Order refers to a formal order as communicated via the Gazette of MP. Delegation of powers means that the principal of a government HEI has the power to spend the available budget, without reference to the DHE (subject to activities approved within the annual budget and using the FMP Manuals).</p> <p><i>Source:</i> DHE to send the Association copies of relevant GOs.</p>
5 (b) Publication of Government HEI annual reports	<p><i>Definition:</i> The annual report format will be developed by the DHE and will include data on a set of prescribed indicators and a timetable for completion. The format will be discussed and finalized by DHE with the Association's agreement. Publication means placed on the website of the institution.</p> <p><i>Source:</i> DHE to send Association a list of those institutions which have published a report in the required format in the last 12 months.</p>

<p>5 (c) Strengthening governance structure in colleges</p>	<p><i>Definition:</i> The government will issue a Government Order for the strengthening of the governance of government colleges. This Order will include the composition of a body (whether restructuring of existing governance structures or establishment of new structures) with overall responsibility for the strategic direction and accountability of the college. The membership of the body may vary from different categories of colleges, but consists of a group of independent members comprising representatives from different stakeholder groups whose goal is to ensure the HEI meets its objectives of teaching, learning and research. The composition is expected to be such that government nominees will be in the minority, those from the institution about half and independent members the remainder. The independent members are selected by the body; one of whom will be chosen by the members as its Chair. The Government Order will also lay out increased delegation of powers to the colleges, over financial, management, administrative and academic issues.</p> <p>For Year 1 target, Government Order refers to a formal order as communicated via the Gazette of MP.</p> <p>For Year 5 target, denominator for the calculation is the number of Government HEIs established as of March, 31 2015.</p> <p><i>Source:</i> PD to send the Association copy of the Government Order. PD to send list of institutions with the strengthened governance structure. HEI websites.</p>
<p>DLI 6: Fiduciary strengthening of Government HEIs</p>	<p><i>Definition:</i> Upgraded FM system means that an HEI has submitted audit reports generated by computerized accounting system and a standard Chart of Accounts as notified by DHE. All sanctioned posts of accountants for Government HEIs filled sanctioned positions with a qualified individual on a full-time basis. Target for Year 4 covers all government HEIs established more than 6 months before the verification date (i.e., March 31, 2018).</p> <p>Target for Year 4 cannot be met early.</p> <p><i>Source</i> A letter from the PD confirming the number of institutions that have upgraded their financial systems, with an annex listing their names. Third party verification required.</p>

## Annex 2: Detailed Project Description

### INDIA: Madhya Pradesh Higher Education Quality Improvement Project

#### I. Madhya Pradesh Higher Education Program and World Bank Support

1. The Madhya Pradesh Higher Education Quality Improvement Project (MPHEQIP) will support the implementation of the GOMP's vision for the HE sector as articulated in the Vision 2018 Document and the State Higher Education Plan 2014. The Project is in alignment with the Government's vision and focuses on the following thematic areas in HE: (a) **excellence and employability** through better quality of education services offered, improved teaching-learning resources, and research; (b) expanding **equity and access**; and (c) strengthened sector and institutional **governance and financing**, and management (including better M&E in the sector).
2. MPHEQIP is designed around the fact that the HE sector in MP is currently at an emergent level with regards to capacity of HEIs to achieve quality outputs, internal and external quality assurance, and robust governance, management and data systems. The GOMP foresees a significant period of reform in the HE sector initiated by their Vision 2018 document, their participation in the RUSA scheme, and new state level initiatives.
3. The MPHEQIP is designed to help the GOMP begin its long-term reform process. International evidence suggests that when embarking on a major reform, it is essential to identify a relatively small number of complementary and mutually-supporting activities which can be completed successfully so as to build momentum for further reform. In this way also, the system's capacity to plan, implement, monitor and adjust its reform path is augmented – making the next phase of reforms more likely to be successful. While the expected outcomes from a first phase (i.e., from the MPHEQIP) may be relatively modest, the initial set of activities should lay the foundation of capacity and processes for further reforms.
4. This Annex provides a detailed description of the Project, its components and sub-components. The MPHEQIP has three components: (i) Component 1: Grants support to HEIs for improving institutional performance along the following dimensions - excellence, equity, employability, access, and governance; (ii) Component 2: State Level Initiatives to strengthen sector governance; and (iii) Component 3: Improving System Management. The first two components (US\$285 million IDA) cover the result-based financing part of the Credit and will finance key expenditure items of the HE budget, using disbursements tied to pre-specified results. The third component (US\$15 million IDA) will provide technical assistance and capacity building for smooth implementation of activities under the first two components.
5. Disbursements under Components 1 and 2 will be made against a set of EEPs selected from the GOMP's DHE budget, and will be linked to the achievement of a set of DLIs. Each DLI will have its own value. The Bank's guidelines on FM, Procurement, and Social and Environmental safeguards will be applicable to the EEPs.

## II. Project Components

### Component 1 – Grants Support to HEIs (Total: US\$ 387 million; IDA: US\$ 270 million)

6. The main thrust of the project will be Institutional Grants to eligible government colleges and universities through two windows: (a) Window 1: Strategic Plan Grants support to HEIs, and (b) Window 2: Establishment of Centers of Excellence. The Strategic Plan Grants (Window 1) will provide financing to enable colleges and universities to pursue the goals set out in their respective Institutional Strategic Plans which will be prepared by all government colleges and university departments under the project. It is expected that through these Plans institutions will improve institutional performance around quality in HE, equitable access and better capacity utilization, strengthened quality assurance including activities aimed at making students more employable, skills development, and strengthened institutional mechanisms for governance and management. Centers of Excellence support (Window 2) will provide financing to a limited number of colleges and university departments that satisfy a set of minimum conditions for excellence for establishing best practice teaching-learning and research in a focus area. Component 1 will constitute the major bulk of funding under the project. A limit of 25% of total project costs may be used for civil works. An HEI can, in principle, receive support under both windows. Reimbursement for Component 1 will use a results-based-finance modality based on achievement of a set of DLIs.

7. The grants provided under this component will also reinforce the system reforms under the project, e.g., (i) increased autonomy and accountability, and help to re-define the relationship between DHE and government colleges; and, (ii) pursuit of NAAC accreditation to benchmark quality and access to additional resources for quality improvement from national and state governments.

#### *Window 1 -- Institutional Development Grants to HEIs*

8. Institutional Strategic Plans: All government colleges and university departments in the state will prepare an institutional strategic plan with a 10 year horizon, setting out their goals (including measureable targets) and a set of actions necessary to achieve those goals. The HEIs can use their plans to propose, *inter-alia*, training of faculty, upgrades of equipment and teaching-learning resources, refurbishment of existing infrastructure, construction of new infrastructure (college buildings and hostels) up to a ceiling<sup>21</sup>, ICT services (including libraries and e-resources), quality assurance, support for disadvantaged students (by enhancing their student support services,

---

<sup>21</sup> For the purposes of this note, 'new infrastructure' means new stand-alone buildings. In this project, the new infrastructure will be limited to: (a) hostels, especially to attract girls and ST populations to higher education; and (b) new buildings for established colleges which currently have no buildings. In addition to new infrastructure, higher education institutions will be able to use funds from the project for civil works upgrading, such as (but not limited to): renovating existing buildings, repair and maintenance, improving energy efficiency and greening buildings, provision of water supply and waste disposal, purchasing equipment (specialist laboratory equipment, furniture, etc.) and extension of existing buildings. In no cases (i.e., neither for new infrastructure nor for civil works upgrading) will any new land be acquired from project financing nor will any site be used where resettlement would be needed (including voluntary resettlement). In addition, in all cases, the social and environmental management frameworks agreed for use under the Bank-financed project will be used. Funding for new infrastructure in colleges with no buildings at present will be subject to: in ST dominated areas, minimum number of UG students (500) and faculties (at least 2), 75% of faculty positions are filled with permanent appointments, permanent principal in place, financial audit completed for last 5 years, necessary social and environmental clearances, and no land acquisition or involuntary resettlement.

remedial classes, pedagogical training, hostel facilities, etc.), greening of campuses, wifi-campuses and smart classrooms, sports and cultural activities, additional technical support staff, and additional faculty members hired on contract for the project period.

9. Strategic Plans will be developed through consultations with key stakeholders, especially students and faculty.

10. It is expected that the average grants size to an institution will likely be US\$2 million (100 million or 10 crore rupees); actual grants size may be less or more), and a maximum of 200 government HEIs will be supported through this sub-component.

11. The process for developing these Plans<sup>22</sup> is expected to galvanize the various stakeholders in institutions (faculty, non-teaching staff, students, members of the Governing Body, local employers) around plans to improve their institution. It is expected that these Plans would also help institutions prepare for NAAC accreditation (either for the first time or for re-accreditation). These Plans would form the basis for the Government to prioritize the allocation of resources from MPHEQIP, and the RUSA scheme as well as be the platform from which institutions apply for other funding (from UGC, Department of Science and Technology, alumni, employers, etc.). The Strategic Plan is a significant undertaking, the need for these plans to be developed in a consultative way. The fact that most institutions do not have experience of preparing such plans will mean that institutions will need significant training and capacity building support to do this properly. The Plans once prepared would be finally approved by the Governing Body of the institution.

12. Selection of colleges and university departments for Institutional Grants support: Broadly, the selection process will be a three stage process consisting of (a) identification of eligible institutions, (b) preparation of strategic plans by eligible institutions with technical support, and (c) review of plans for final selection. The eligibility criteria for HEIs to receive institutional grants would be a set of objective indicators: having a minimum number of students, a minimum percentage of faculty positions filled, having an active quality assurance committee, have completed all required audit reports, and being at least of a certain age. The final minimum values of these criteria as determined by the DHE and agreed with the Association will be described in the PIP. All eligible colleges and university departments will need to complete their Strategic Plans, and HEIs that are selected for grants support will need to submit annual work-plans and budgets, annual targets to be achieved and a financial sustainability plan covering five years after project closing, and will need to agree to the monitoring and reporting requirements of the project. DHE will use review committees to assess Plans and recommend any changes or approve them. All Plans will be consistent with NAAC requirements, and will include quality, equity, efficiency and governance and management target outcomes for the KPIs and the intermediate outcome indicators in the Results Framework. All supported institutions will also ensure that there is regular internal

---

<sup>22</sup> Steps in the development of the strategic plans will include: (a) development of a Plan template, (b) establishment of a process for plan development, (c) consultation with institutions and finalization the process, and (d) development of a timetable for institutions to complete their strategic plans in a phased manner, and (e) preparation of the plans based on the agreed process. The PD will prepare Terms of Reference for the necessary capacity building (technical assistance, workshops) of the HEIs to prepare these plans, and will contract with government and private institutions which are able and willing to provide needed capacity building.

quality assurance through their quality assurance committees and through labor market tracking of students.

13. Performance management and Quality Assurance: Each institution receiving an Institutional Grant will receive an initial allocation (20 percent of the grant) to begin activities. Each institution will also agree with DHE on a set of performance standards which will have to be met in order to receive further tranches of funding. Some of these performance standards will be common across all institutions (such as adherence to the FMP Manual, on-time preparation of the financial audit, on-time completion of data entry for the management information system/AISHE, publication of an annual report, etc.) while others will be related to specific goals and objectives of the different institutions.

14. Strategic Plan support to institutions is aimed at strengthening systems and mechanisms so that institutions can make continuous improvement in the delivery of education services. All colleges in MP have an Internal Quality Assurance Cell (IQAC) which will be strengthened through Strategic Plan support, and which will take the lead in helping institutions achieve NAAC accreditation, in preparation of the institution's annual report, and other quality related issues in the institution. As NAAC accreditation, preparation of annual reports, and quality management are data intensive processes, the HEIs will use the financial support provided for their strategic plans to hire dedicated data management personnel. All institutions selected for Plan support will have to establish functional placement and career cells, and introduce labor market tracking of students, through a system of their choice (such as making use of mobile phones and e-mails). These placement cells would have dedicated personnel who will have the skills-set that allow the HEI to establish strong linkages with employers within and outside the state, arrange for soft-skills development of their students, and manage and update the institutional data associated with placement and labor-market tracking.

*Window 2 – Establishment of Centers of Excellence in existing colleges and university departments*

15. This window will support the establishment of Centers of Excellence (COEs) in different subject areas in existing government colleges and university departments. The objectives of the COEs will be to develop specialized facilities in particular subject areas, and undertake research in areas that have been deemed to be of importance for academic, commercial and research reasons. The COEs will be awarded using a sequence of steps beginning with inviting proposals from interested government colleges and university departments. It is expected that there will be a total of 30 COEs by the end of the project; with average allocations of US\$2 million.

16. Center of Excellence Proposal, review and selection process: Interested colleges and university departments will have to submit a detailed proposal for the establishment of COEs. The proposal will describe the institution's vision and objectives for establishment of the COEs, self-assessment of their strengths, weaknesses, and the opportunities they foresee for themselves, activities and targets to be achieved over the project period and annually, and against which they will report, and a budget/cost section. The Departments can use their proposals, *inter-alia*, for training of faculty, equipment, teaching-learning resources, refurbishment, ICT services, fellowships, quality assurance such as NAAC fees, and support for signing MOUs with industries, additional technical support staff, and additional faculty members hired on contract for the project

period. Only those colleges and university departments that fulfil a set of minimum conditions for excellence will be eligible for support through this window. The process of reviewing and final selection of proposals will include teams of two independent experts who would review each proposal and make a recommendation to the PD. The objective of the evaluation will be two-fold. The first objective will be to make a recommendation to the PD regarding funding for the proposal; the second objective will be to provide guidance to the applicants on how to strengthen their proposals.<sup>23</sup>

17. Performance management: In a similar way to Institutional Grants, institutions receiving funds for COEs will be required to meet certain performance benchmarks in order to receive funds beyond the initial allocation.

18. For this component, release of IDA funds will be linked to achievement of the following DLIs: DLI 1 (Increase in UG enrollment), DLI 2 (Improving equity), DLI 3 (excellence and quality assurance), DLI 4 (Improving employability), and DLI 6 (Fiduciary strengthening of HEIs).

### **Component 2: State Level Initiatives (Total: US\$ 21.5 million; IDA: US\$ 15 million)**

19. The main objective of Component 2 is to support state level initiatives for enhanced equity, improving the quality of teaching, learning and research, and the quality and relevance of system outputs in the form of better skilled graduates and research desirable by employers, and companies in the private sector. The Component supports strategic interventions to be undertaken by the state to (a) provide financial support through scholarships to disadvantaged and meritorious students, (b) upgrade qualifications and skills of new and existing faculty members, (c) establish a state institute of HE training and research, (d) enhancing quality and relevance of programs; and (e) extend technical assistance for NAAC to all government HEIs. Reimbursement for Component 2 will also use a results-based-finance modality based on achievement of a set of DLIs.

20. Scholarship support for disadvantaged students: Under this sub-component, the GOMP will commission a review of existing scholarship schemes for their impacts, including the ease with which scholarships can be accessed by students, continued student attendance and retention, course completion, and adequacy of support. The review will also make recommendations on mechanisms for supporting meritorious students from disadvantaged backgrounds, and for increasing the participation of students from these groups into more science based courses. Based on the findings of the review, the design of some of the existing schemes may be revised as necessary, and the number and types of scholarships offered scaled up. Consultations will be held with targeted beneficiaries before the revised set of schemes are finalized. Information on all scholarship schemes offered by the DHE will be made available on the Scholarship Portal which is a repository of information on scholarships for HE from all sources in the state. In the fourth year of project implementation, GOMP will commission a feasibility study for the sustainability of interventions introduced under this activity.

---

<sup>23</sup> The two independent experts who will evaluate the proposals will preferably be from outside of MP (including outside of India). The experts will be independent: i.e., they will not have any ongoing collaboration in teaching or research with the Department which is submitting the proposal, nor will they have received a higher degree (MA or PhD) from that institution. The experts will remain anonymous; their identity will be known only to the DHE and the PD.

21. Establishment of the State Institute of Higher Education, Training and Research (SIHETR): There is a need for a dedicated institutional or organizational mechanism with the mandate for the focused development of human resources for HE, and which includes in its scope training (including needs analysis, implementation plans, calendars etc.), research and development, consultancy, and other activities). Members of the SIHETR can include faculty from the parent institution, faculty from other HEIs, experts, academics and scholars, and industry representatives. The SIHETR will also offer residential and non-residential fellowships to scholars in India and abroad. It is envisaged that the SIHETR will *inter alia* carry out the following functions:

- a. Carry out training needs analysis (TNA) periodically for faculty, management, heads of institutions and other stakeholders in the sector.
- b. Coordinate training activities that are on offer from various institutions in the state, and create a single-window for applicants to get information on these training. In particular, conduct training of trainers.
- c. Create linkages with institutions that are located within the country and abroad for conduct of training and joint research in HE domain areas and areas identified in the TNA.
- d. Promote research and analysis in the area of HE pedagogy, assessment, curriculum revision and development, students' need assessment, policy making and M&E. In particular, provide advice to the SHEC, the DHE and the State Governments as needed, for example, over norms for establishing colleges and the introduction of the choice based credit system in institutions.
- e. Conduct specialized training to faculty on research methods, sources of support for carrying out research, and the various media for publication of good research (as working papers or in peer reviewed journals).
- f. Develop specialized state-level facilities for audio-visual lab, to connect with other institutions and pilot innovative curriculum ideas.
- g. Have a dedicated website that will make available in the public domain: research, work in progress, and information on upcoming events.

22. The PD will invite applications from interested institutions in the state for the establishment of the SIHETR within their existing campus. The project will provide support for the refurbishment of premises, equipment and facilities support, fellowships, recurrent costs, and hiring of extra personnel required to run and manage the SIHETR.

23. Upgrading Qualifications and Skills of New and Existing Faculty Members: The project will provide financial support to all government HEIs for upgrading their academic qualifications (Masters, Doctorate, etc.). Institutions which receive in Institutional Grant would be expected to use that Grant to meet these costs. For other colleges, direct provision of financial support for upgraded qualifications will be provided. The project will also provide research grants to faculty members and researchers to conduct original research, and for publication fees. Research grants will be awarded through a rigorous peer review process, including experts from outside MP, and in priority areas.

24. Enhancing the Quality and Relevance of Programs delivered by HEIs: Curriculum development and revision for affiliated colleges in MP are currently the responsibility of the Board

of Studies of affiliating Universities. In most colleges, faculty and students express their dissatisfaction with the relevance of curricula used in the various programs, though there is no functional mechanism in the state to take cognizance of their views. In principle, faculty members in colleges have the freedom to adapt twenty percent of the syllabus to align with needs as they deem fit. In practice, faculty members usually do not exercise this flexibility as their perception is that the twenty percent needs to be appended to the syllabus and not be used to substitute the same.

25. All the six affiliating state universities in MP will establish Curriculum Revision Committees (CRC) that will coordinate with their Boards of Studies for the various programs, and the affiliating colleges to ensure that curricula for all programs currently offered are revised, and new curricula developed for colleges wishing to introduce such programs. The CRC will include experts, scholars, industry representatives, teachers and students, and research organizations. Digitization of all curricula will be done (as video lectures, power-point presentations, e-books, etc.), and made available for all colleges in the state.

26. Extending NAAC related support to all government and aided colleges: Government and aided colleges in MP that are not selected for Strategic Plan Grants support will be able to use the aegis of the project towards applying for NAAC accreditation. This will include financial support for (a) participation in NAAC workshops organized by the PD, (b) preparation of their NAAC applications which can include hiring of consultants and experts in this area, and (c) NAAC fees.

27. For this component, release of IDA funds will be linked to achievement of the following DLIs: DLI 2 (Improving equity), DLI 3 (Excellence and Quality) and DLI 5 (Strengthening sector governance).

### **Component 3 – Improving system management, (Total: US\$ 21.5 million; IDA: US\$ 15 million)**

28. The main objective of this component is to assist DHE, SHEC, the PD and the HEIs to strengthen their implementation capacity and sector governance and management. Funds under this component will be disbursed based on IUFs prepared and presented every six months. This component has two main sub-components – Sub-Component 3.1: Improving Sector Governance and Management, and Sub-Component 3.2: Capacity Building which includes technical assistance, project management and M&E activities. This component requires the preparation of an annual procurement plan according to guidelines agreed between the DHE and the Association (and as described in a Procurement Manual).

#### **Sub-component 3.1 – Improving Sector Governance and Management**

29. The objective of this sub-component is to strengthen governance, management and accountability structures and practices at the state and institution levels. The main activities supported under this activity will include: (a) helping a larger number of institutions attain autonomous status that goes beyond the UGC definition of autonomy, (b) preparation by all government HEIs of an annual report on performance, (c) strengthening governance of government colleges with clear mandates with respect to governance and accountability, and (d) fiduciary strengthening of government colleges.

30. Institutional Autonomy: The UGC formally grants to colleges academic autonomy that meets certain conditions; this autonomy relates to curriculum, conduct of examinations, assessment and declaration of results. Such colleges are also entitled to certain grants from UGC. Colleges wishing to apply for autonomy have to meet certain conditions, including having permanent affiliation and NAAC accreditation. The Institutional Grants therefore are an important mechanism for helping institutions acquire this academic autonomy.

31. Beyond this academic autonomy, however, evidence from around the world, including India, shows that a key reform that promotes more effective institutional performance (of both universities and colleges) is greater autonomy across financial, managerial and administrative aspects as well. This will require new guidelines and regulations to be developed by the DHE, to be followed by significant capacity building of institutions in order that they may exercise this greater autonomy effectively. These guidelines and regulations will also need to address how institutions with greater autonomy will also be subject to robust accountability. The intention is that more colleges would acquire this autonomy during the project.

32. In order to effectively implement actions towards their strategic plans, institutions need effective autonomy. Autonomous colleges should be given the powers over academic issues as prescribed by the UGC. Specifically:

- Freedom to decide on the structure and modalities for the end term examination
- Freedom to decide the syllabus for UG programs, subject to approval by their own board of studies. Currently, colleges are constrained by university regulations. (Autonomous colleges already have freedom over the syllabus with respect to postgraduate programs).

33. Beyond the delegated power of the principal, the Governing Body of the institution should have final authority over expenditures of the institution. Provided colleges and universities use the prescribed FM and procurement manual, they should have freedom to incur expenses if funds are available to them, without any further approvals from the DHE.

34. Jan Bhagidari Samitis/governance structures: Having an effective governance body structure is also essential in order for colleges to effectively utilize their autonomy by setting and fulfilling strategic objectives. Capacity building of members of governance structures will be undertaken over the course of the whole project.

35. By the end of the project, it is expected that all colleges should have restructured governance bodies, which are constituted such that (a) the Chair is an academic; (b) the government representatives and nominees are in the minority; and (c) at least one third of the members will be independent (i.e., independent of and external to the institution). The DHE will get the relevant approvals to change the composition of governing bodies by 31<sup>st</sup> October 2015.

36. The main responsibilities of governing bodies will be:

- To approve the mission, strategic plan and annual budget of the institution
- To ensure the establishment and monitoring of proper, effective and efficient systems of control and accountability

- To monitor institutional performance and quality assurance arrangements
  - To put in place suitable arrangements for monitoring the performance of the head of the institution
37. Governing structures will seek to operate in a transparent and open manner. This includes
- Publishing an annual report as per the format prescribed by DHE
  - Advance notice and Minutes of the meetings will be posted on the institution's website
  - Setting out the expectations of members of the governing structures in terms of attendance at meetings and other college events, and maintaining a register of interests.
38. However, this will be implemented in a phased manner as follows:
- Existing autonomous colleges. By 31st March 2016 all governing bodies of existing autonomous colleges will have been reconstituted and have had their first meeting.
  - Additional autonomous colleges: Any new colleges which become autonomous will have governing bodies established along the revised lines from the beginning of acquiring autonomous status.
  - NAAC accredited colleges. All colleges are currently accredited by NAAC with a grade A, B or C will be required, by 31st March 2016, to align their governance structures with the government order and have held the first meeting.
  - Additional colleges which become accredited by NAAC. Colleges which become accredited during the course of the project will align their governance structures with the government order and have held the first meeting within 6 months of acquiring NAAC accreditation.
  - The remaining government colleges will align their governance structures with the government order over the course of the project. The DHE and the Association will agree on the criteria which will be used to phase institutions. It is expected that the main criteria will be: number of students and percentage of faculty in place.
  - DHE/PD will organize appropriate training and other events for members of the governance structures to understand and carry out their roles and responsibilities effectively.
39. Institutions Annual Reports: All government colleges will prepare and publish an annual report, which will provide information on a standard set of indicators collected in a consistent way. These annual reports will (a) provide reliable information on the nature and performance of the HE sector in MP, (b) act as benchmarks for the HEIs assessment of their own performance, (c) be a source of evidence to inform policy developments, and (d) contribute to public accountability of the HE sector. The PD and the DHE will develop a set of indicators and a template for the annual report in the first year of the project.
40. Faculty and Principal Transfers: It is important that there is some stability for faculty and principals of colleges, so that they can contribute effectively to the development of their institutions. This needs to be balanced against the needs of the system to ensure an equitable distribution of faculty and principals across government colleges – though new faculty appointments rather than transfers are the most effective way to do this. The DHE will publish its policy about faculty transfers. This policy will make clear that: (a) the normal expectation is that

faculty and principals will be able to remain in post for at least three years; (b) faculty and principals would only be moved before three years under exceptional circumstances. The policy would set out what these circumstances are and the process by which the DHE will apply these exceptions; (c) all transfers will take place during the main breaks between semesters; (d) transfers would not be used a disciplinary action. However, faculty may request to be transferred to an existing open position at any time.

41. Guest Faculty: The DHE will amend the current policy/guidelines to increase the compensation given to guest faculty, up to the equivalent of assistant professor daily rates. Colleges and universities would be able to enter into contracts with guest faculty for at least 10 months. However, colleges would only be able to hire guest faculty if they have the resources available in their approved budget.

42. Fiduciary strengthening: Fiduciary strengthening of government colleges and state universities: Under this sub-component, the DHE and government colleges will be supported to strengthen their fiduciary systems through (a) shifting to electronic systems for FM, and (b) financial support for hiring a Chartered Accountant for clearing past audit observations and conducting regular audits. The PD will designate an officer (who can be a consultant hired for the purpose) to consolidate all the audit responses received and prepare a report for each institution that will be used to follow up on compliance, and to provide appropriate support to HEIs as necessary on an annual basis.

### **Sub-component 3.2: Capacity Building**

43. This sub-component will support capacity building activities to help SHEC, the PD, and the HEIs carry out the implementation of the project in a smooth manner. It will include technical assistance support for project management, M&E, and funds for surveys, studies, assessments and any due diligence deemed necessary for policy and practice. Activities under this sub-component can include *inter-alia*:

- Fully staffed PD: the PD can use project funds to hire consultants in different expertise areas (domain areas such as pedagogy, scholarships, M&E, and management areas such as procurement, FM, M&E) for the entire project period or for a short duration as deemed necessary.
- DLI verification: Hiring of agencies to verify the achievement of the DLI according to agreed protocols and to agreed standards.
- Performance assessment and verification of reports submitted by supported HEIs (colleges and university departments) against their annual targets.
- Faculty and Student Satisfaction Surveys: The PD will commission surveys of faculty and student satisfaction and of employer perceptions at least twice during the project period, and use the findings towards actions that can help improve the academic experience of faculty and students subsequently.
- Policy or Assessment studies on the affiliation system, the credit system, norms for establishing government and private colleges and universities, etc.
- Hiring of dedicated personnel for managing the inputs and outputs (reports and summaries) of the project M&E system.

- Capacity building of SHEC and the PD, through provision of long-term consultants in the areas of monitoring, statistics, policy analysis FM and procurement. Short-term consultants in other areas as required such as program evaluation, regulatory reforms, and communications and outreach can also be hired by the PD.
- Technical assistance to HEIs to prepare their Institutional Strategic Plans and in the areas of strategic planning, budgeting and financial planning, governance, use of the MIS and M&E.
- Technical assistance on the NAAC accreditation process.
- Establishment of an IT Portal/MIS for the HE sector as a whole and training of HEIs in the use of the MIS.

### Annex 3: Implementation Arrangements

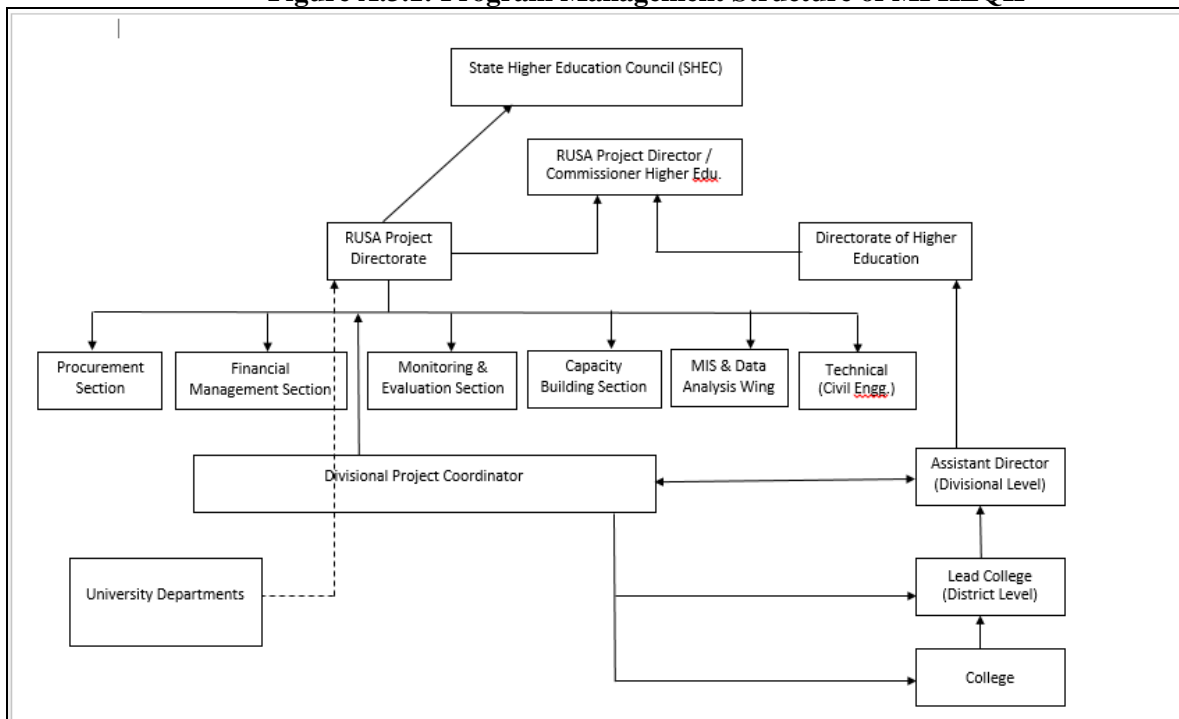
#### INDIA: MADHYA PRADESH HIGHER EDUCATION QUALITY IMPROVEMENT PROJECT

##### Project Institutional and Implementation Arrangements

- 1. Project Directorate:** The main implementing agency for the project will be the RUSA PD, established in October 2014, which serves as the executive arm of the SHEC, and is also responsible for managing the State's RUSA funds. The Commissioner of HE (DHE, GOMP) is the head of the PD as its Director. He/She is supported by an APD who is responsible for the day-to-day activities of the PD. The Directorate has autonomy to recruit contractual staff. Currently, the PD has 18 sanctioned posts, five of which are filled as funds from RUSA are only now starting to flow. For the smooth implementation of the project, the PD staff will be supported by a team of consultants with expertise in different domain areas, namely, procurement, FM, HE sector issues, capacity building and training, and M&E. These consultants can be hired using agreed processes for long and short durations, as necessary.
- 2.** The PD will be responsible for overall project implementation, and for activities financed by the project that are state-wide in coverage, for example, for the State Institute for Higher Education Training and Research, capacity building activities on governance, Tally software and the IT Portal, including the FM and procurement arrangements for these activities. The PD will also be fully responsible for implementing the Technical Assistance (TA) component of the project. The PIP will set out the functions of the PD in detail, including its delegated authority.
- 3.** At the institutional level, the HEIs, namely the University Departments and Colleges, will implement project supported Institutional Strategic Plans. The Plans will be approved by the Jan Bhagidari Samitis/governance structures of the HEIs. The HEIs will receive funds from the PD to be utilized by them according to processes described in the agreed FM and procurement manuals for the project. The IQAC in each supported HEI will be the locus of quality monitoring within the institution for the institution as a whole, for programs offered by the institution, student academic and employment outcomes, and institutional performance vis-à-vis strategic plans. The IQACs will also be responsible for overseeing the preparation of the institutional annual reports. Presence of a functioning IQAC in HEIs will be a condition for receiving project support.
- 4. Jan Bhagidari Samitis/governance structures in HEIs:** Each HEI is required to have an overall policy making body, which makes decisions for the institution within the delegated powers set out in the relevant legislation, regulations and/or statutes. Overtime, the project will increase the level of delegation power to these bodies, within a clear framework of accountability, as described in the PIP.
- 5. Division level Monitoring/Role of Lead Colleges:** The DHE has established a 'lead college' in each district, which is responsible for administrative coordination between the government colleges in that district and the Department. These Lead Colleges will continue to have this function under the Project, including raising awareness about project activities among its colleges and collecting information and project progress reports to forward to the PD.

6. **The State Higher Education Council:** The MP SHEC, created in October 2014, has overall responsibility for policy-making in HE in the state. The Council is headed by the State Minister for Higher and Technical Education, with the Principal Secretary and Commissioner of the DHE as members of the Council. SHEC also has members from institutions and other state government departments. The PD will present to the SHEC periodic project progress reviews, and seek guidance on project implementation, as necessary. The SHEC can use recommendations and findings emerging from the project, and any sector studies/surveys/reviews carried out as inputs into its larger policy-making, sector oversight and coordination, and guidance role.

**Figure A.3.1: Program Management Structure of MPHEQIP**



7. **Project Implementation Plan (PIP):** A comprehensive PIP will be prepared to guide implementation of all project activities by all project implementing agencies, including agreed documentation, monitoring, reporting, review and evaluation. The PIP will provide detailed operational guidance, and will be made available in the local language to all implementing agencies. The PIP will be a living document, to be changed from time to time as necessary, for more effective implementation based on findings from progress reviews and feedback from monitoring agencies, while adhering to the agreed protocols of the overall project.

### **Financial Management, Disbursements and Procurement**

8. *Financial Management Assessment:* The FM risk is rated as Substantial based on assessment of the FM performance of the implementing agencies namely the DHE, a sample of Universities and Colleges (HEIs) receiving government grants and the measures agreed to mitigate assessed risks. The key weaknesses observed and the mitigation measures incorporated in the Project design are stated in Section VI C of the main text of the PAD. The agreed FM arrangements summarized below are adequate to meet the Bank’s fiduciary requirements.

## Components 1 and 2: Results-based Funding

9. *Disbursement Linked Indicators:* Disbursements for Components 1 and 2 of the Project are conditional on the achievement of reform actions or results. These are identified as DLIs. A certain amount of credit proceeds has been allocated to each DLI, referred to as the DLI value, which is the amount that the government can claim as reimbursement if that DLI has been achieved and verified.

10. The amount eligible for disbursement will be equivalent to the value of the DLIs achieved as given in the DLI table (Table 3 in Annex A) subject to a cap of 70% of the cumulative expenditures reported under the EEPs<sup>24</sup>. The DLI table also specifies the unit price of each DLI. The Verification Protocol sets out the DLIs for which independent verification is required, and whether a DLI target can be met ahead of or after the targeted year.

11. *Financing Mechanism:* The Association will disburse the lesser amounts of (a) the agreed values of the DLIs met and verified; and (b) an amount of 70% of the cumulative expenditures reported under the EEPs. The EEPs include mainly salaries and establishment costs of the DHE and financial assistance to Government HEIs for meeting salary costs of these institutions.<sup>25</sup> These pre-identified budget lines will comprise the EEPs for Components 1 and 2 (Table A.3.2). The remaining expenses incurred under these budget lines will represent the counterpart funding by GOMP.

**Table A.3.2: Eligible Expenditure Programs (EEP)** *In INR Million*

Budget Code	Description	Budget	Actuals	Budget	Actuals.	Budget	Budget
		2012-13	2012-13	2013-14	2013-14	2014-15	2015-16
	<b>Non Plan</b>						
	Direction and Administration	143.82	164.96	166.12	127.81	180.12	171.31
	Assistance to Universities	434	433.90	419.71	419.6	419.71	419.71
	Assistance to Government Colleges & Institutes	7796.08	7134.67	8939.33	9584.85	10124.3	10751.05
	Total	8373.9	7733.53	9525.16	10132.26	10724.13	11342.07
	Total in USD Million	139.6	128.9	158.8	168.9	178.7	189.0

*Note: The above-mentioned expenditure heads comprise non-procurable items only*

12. *External verification.* Decisions regarding compliance and disbursement against DLIs will be made on the basis of reports prepared by the GOMP and presented to the Association with the necessary documentation verifying that they have been satisfied. A third party expert as per the verification protocol agreed between the GOMP and the Association will verify the findings presented in these reports with the full assistance of the counterparts.

<sup>24</sup> Refer para 11 and Table A.3.3

<sup>25</sup> Assistance to Universities and Colleges mainly represent salary costs of these institutions.

13. *Frequency of IUFs and disbursements:* The GOMP will submit six-monthly IUFs in agreed formats along with the Project Reports. The IUFs will be prepared on the basis of monthly accounts prepared by the Accountant General, MP showing the expenses incurred under the EEPs. The first two IUFs will cover the periods from (i) April 2015 up to the date of signing of the Financing Agreement and (ii) the day succeeding the date of signing of the Financing Agreement to March 31, 2016. All subsequent IUFs will cover a six month period from (i) April 1 to September 30; and (ii) October 1 to March 31. Once the IUFs are submitted to the Association along with the Project Reports and the DLIs are verified as met according to the agreed verification protocol, the Association will disburse funds as per paragraph 10 above to GOI. The GOI will pass on these funds on a back to back basis to GOMP as per existing arrangements between GOI and the States for externally aided Projects.

### ***Component 3: Improving System Management***

14. *Finance mechanism:* Project funding under Component 3 will be used to reimburse the GOMP for 70% of the expenses incurred for the agreed activities under this component. GOMP will provide counterpart funding for the remaining 30%. The following expenditures are eligible: consulting and non-consulting services, goods, workshop and training and other operating costs.

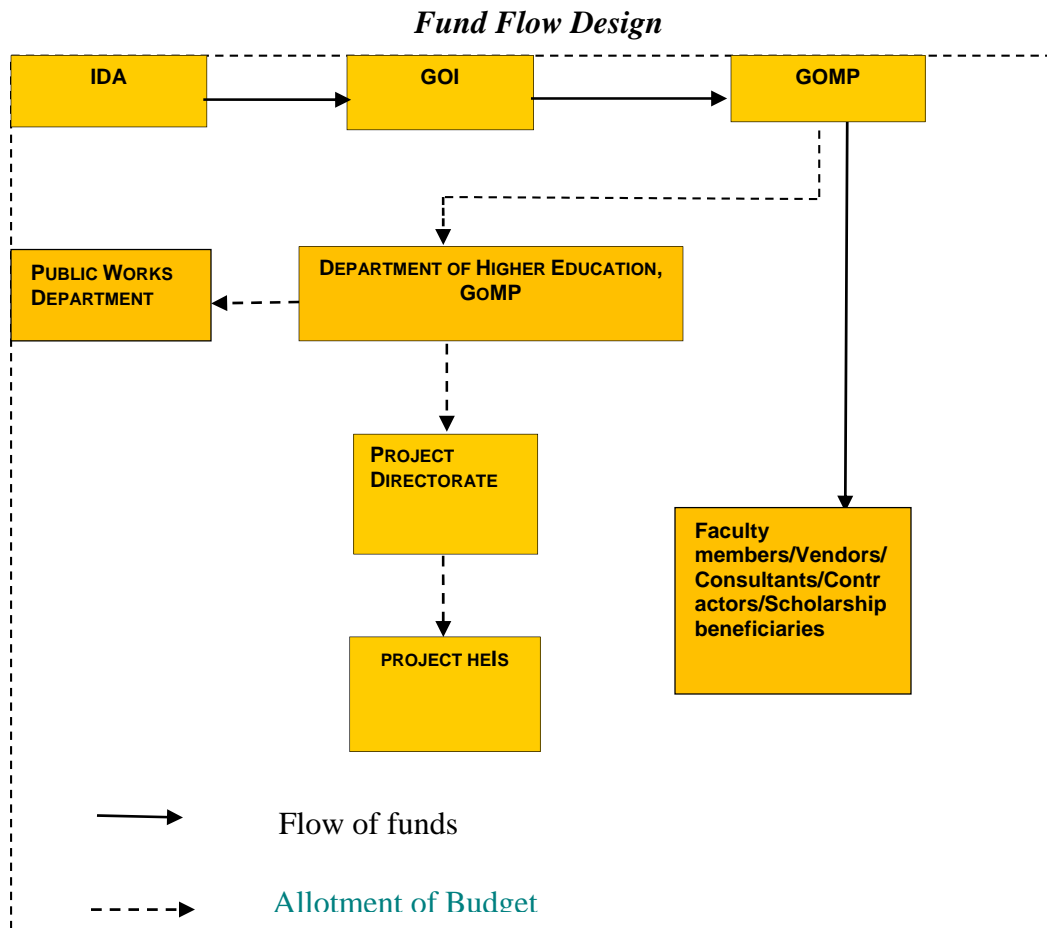
15. *Frequency of IUFs and Disbursements:* Disbursements by the Association will be report-based. Seventy percent of expenditures under this Component will be reimbursed by the Association to GOI based on half-yearly IUFs in agreed formats submitted by the PD. GOI will pass on these funds on a back to back basis to GOMP's consolidated fund as per existing arrangements between the GOI and the States for externally-aided Projects. The period covered by the IUFs will be the same as mentioned in para 13 above.

16. The Project will use the State Treasury System for making payments of all expenditures incurred under the Project. Budget once approved, will be allotted using the online budget allotment system of the State to all the implementing agencies namely, PD, Project HEIs, PWD (for construction of new Colleges and Buildings). Implementing entities will execute activities as planned and approve payments to vendors/consultant/contractors etc. which will be paid by the State Treasury. The only exceptions are the Universities which will operate through separate bank accounts.

17. The first installment of Grants to an HEI under Component 1 of the Project will be allotted by the DHE only if the following conditions are met by the respective University or College:

- Institutional Strategic Plan of the entity has been approved by the DHE
- Back log of audits for the last five years have been cleared and a full time trained accountant exists for the University/College.

18. Subsequent installments will be allocated once 60% of the earlier installment has been utilized, and another 30% committed by the colleges and universities, and the same is reported to the PD. Once the Institutional Strategic Plan of an HEI is approved by the DHE and budget allotted, the college/university shall have the financial powers to execute the plan. Any subsequent changes in the plan could be reviewed by DHE on an annual basis and approved at the beginning of the budget year in consultation with the respective HEI.



19. *Planning and Budgeting Arrangements:* The Project’s financial planning process for each financial year will follow the budgeting cycle of the GOMP i.e., April to March and will be completed when the project’s expenditure estimates included in the State Government’s Budget are approved by the State Legislature. GOMP will have to ensure that funds are made available to the PD through the budget of the DHE for all project activities so that the agreed results are met. The following points will be considered while formulating budget for the Project.

20. The existing identified budget lines of the DHE will suffice for the EEPs under Components 1 and 2. An additional budget line for the Project has been created under the Plan budget of the DHE. Under this budget line, appropriate subheads will be created for Component 3 (including GOMP counterpart funding) and the GOMP funded activities (i.e., other new activities that need to be undertaken to achieve the agreed results under Components 1 and 2). The fiscal space created with the Association reimbursing the EEP expenditure will be utilized for undertaking these activities.

21. *Disbursements:* The Association will disburse funds to the designated account of the Borrower on the basis of eligible project expenditures pre-financed by GOMP and reported by consolidated six-monthly IUFRRs submitted by the PD in pre-agreed formats. The IUFRRs should

be submitted within 45 days from the end of the reporting period. The applicable disbursement method will be Reimbursement. Funds will be disbursed by the Association as per Table A.3.3.

**Table A.3.3: Disbursement Arrangements**

Disbursement Categories	Amount of Credit (Million US\$)	%age of Expenditure to be Financed (including Taxes)	Disbursement Cycle	Disbursement Condition
1. Eligible Expenditure Program	285	70%	Six Monthly based on IUFRs	Achievement of DLI targets and submission of IUFRs showing EEP expenditures
2. Goods, Non-Consulting Services, Consultants' Services, Incremental Operating Costs and Training and Workshops under (Component 3 of the Project	15	70%	Six-monthly based on IUFR	None
<b>TOTAL</b>	<b>300</b>			

23. **Internal Control Framework:** The internal control framework for the Project will be based on the State Financial Rules and the Treasury Code of the GoMP together with Government Orders issued from time to time. The FM Manual of the Project will set out the FM framework and procedures to be followed by the PD and the HEIs in detail. Internal controls in the Project will at minimum include:

- (a) *Authorization and Approvals:* For payments to be made, the financial and administrative authority as amended for the Project shall be exercised in accordance with the approved delegation of powers.
- (b) *Verifications:* For each payment, the treasury shall review that the payment claim is appropriately supported by documents, is in compliance with approved policies and has been approved by competent authority.
- (c) *Segregation of Duties:* FM function shall be independent of procurement and administration. There will be dual signatories for approval of expenditures at all level of implementation.
- (d) *Physical Controls:* All spending units will maintain a fixed assets register for assets procured from credit proceeds. All assets will be tagged and periodically verified.

24. **Accounting and Financial Reporting:** Since payments for all Project expenditures will be made by the State Treasury, the Project account will be maintained the Accountant General (Accounts and Entitlements), GoMP.

25. The IUFRs will be obtained from monthly accounts maintained by the Accountant General (Accounts and Entitlements) in agreed formats.

## Financial Audits

26. *Internal audit* by independent firms of Chartered Accountants will be introduced covering the PD and the HEIs.

27. *External Audit* of the Project Financial Statements will be conducted by the State Accountant General.

Implementing Agency	Audit of	Auditors	Due Date
DHE & PD	Expenditure Statements comprising relevant Budget lines of EEP and Project financial Statement for Component 3	Accountant General (Audit), GOMP	December 31 of each year

28. The Audited Financial Statements of the Project will be made publicly available in a timely and appropriate manner acceptable to the Association.

29. **Financial Management Reforms:** The following reforms will be implemented under the Project to improve the FM performance of the Government HEIs. These are:

- a. Operationalization of a common off-the-shelf accounting software with a Common Chart of Accounts for all Government HEIs in MP.
- b. The post of an accountant will be sanctioned and filled up by DHE for all Government HEIs in MP.
- c. The posts of Registrars sanctioned but lying vacant will be filled up by DHE.
- d. Collection of Admission Fees and Exam Fees of the Government HEIs will be automated through a single portal of the DHE integrated with the State Treasury.
- e. A system of an annual entity audit of all Government HEIs in the State by Chartered Accountant Firms empaneled by the DHE will be put in place.
- f. An assessment of the adequacy financial powers of HEIs in the State will be undertaken vis-à-vis such powers across other State and Private Institutions and a delegation framework will be recommended for adoption by the State.

## Procurement Arrangements

30. The proposed Credit will finance three components. Components 1 and 2 which use a result based funding modality, will be disbursed based on attainment of DLIs. Component 3, which consists mainly of technical assistance includes capacity building of client and providing additional consultants in specific areas of expertise (IT, M&E, HE, fiduciary etc.) to the PD for project management. Under this component, selection of consultants and procurement of goods and non-consultancy services is involved. Main procurement agencies will be the PD, universities,

colleges, and some out sourcing agencies like state PWD, Madhya Pradesh Laghu Udyog Nigam (MPLUN) and MPHIDC.

31. Procurement for the project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 as updated in July 2014 ("Procurement Guidelines") and "Guidelines: Selection and Employment of Consultants under IBRD loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 as updated in July 2014 ("Consultant Guidelines") and the additional provisions mentioned in the Financing Agreement.

32. Procurement arrangements. At the state level, the PD will handle the procurement. This unit has been recently constituted. It is proposed to establish a dedicated Procurement Cell within the PD that would handle all types of procurement (goods, works, non-consulting services and consulting services) in coordination with respective units. Presently the financial controller (FC) in the PD is managing the procurement process.

33. Staffing of Procurement Cell: The Procurement Cell shall have adequate staff supported by a consultant familiar with World Bank Guidelines and support staff. The Procurement Cell shall operate under the overall directions and guidance of the Finance Controller. All procurement activities under this project shall be processed through this cell. The PD will appoint a procurement consultant who will assist the FC for discharging his procurement function.

34. An e-procurement system is not currently used by the DHE. However, e-procurement will be introduced in phases to increase efficiency and transparency of procurement.

35. Procurement Planning. For each contract to be financed under Component 3 of the Project, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame will be reflected in the Procurement Plan to be agreed between the Borrower and the Bank project team. The capacity building plan will also be reflected in the Procurement Plan.

36. The PD shall prepare a Procurement Plan covering the first 18 months of the project implementation. The prior review thresholds will also be indicated in the Procurement Plan. The Procurement Plan shall be agreed between the Borrower and the Association before negotiations and shall be subsequently updated annually (or earlier/later, if required) and will reflect the changes in prior review thresholds, if any. All Procurement Plans, their updates or modifications shall be subject to the Association's prior review and no objection before implementation.

37. EEPs for DLIs: The project proposes to use EEPs for DLIs under Components 1 and 2, which includes non-procurable items, mainly salaries and operating expenses.

38. *Procurement risk assessment.* The table below describes major procurement-related risks and the mitigation plan. The risk ratings have been set based on both the probability of occurrence of various events as well as their likely impact. Based on the risk factors and mitigation measures, the overall residual procurement risk rating for the project is determined as "Substantial." The

residual rating on procurement will be reviewed and updated periodically by the World Bank during project implementation.

**Table A.3.4: Assessed Procurement Risks and Mitigation Measures**

<i>Risk Factor</i>	<i>Initial Risk</i>	<i>Mitigation Measure</i>	<i>Completion Date</i>	<i>Residual Risk</i>
Institutional framework and staffing	Substantial	PD to prepare a procurement manual for PD and HEIs and strengthen existing procurement cells. A senior officer has been identified for Procurement cell who will be supported by procurement consultant. Procurement staff to undergo training on Bank procurement procedures. .	Before project implementation	Moderate
Limited capacity and inefficiencies resulting in delays in procurement processes	High	Use of skilled procurement staff for handling procurement of services Monitoring through procurement plan and quarterly reports Strengthening of MIS for procurement and contract management	Continuous from year 1	Substantial
Inconsistencies in procurement system	High	Use of Bank approved Standard Bidding Documents.	Throughout the project period	Substantial
Lack of transparency, fairness and grievance mechanism system in procurement process	High	Use of e-procurement system, establish website that would disclose project related information, establish grievance mechanism system	During project implementation	Substantial
Non-compliance with agreed procurement arrangements	Substantial	Training and support will be provided by the Bank to PD officials who in turn train the HEIs Prior and post reviews by the Association Strengthening of complaint management process	Continuous from year 1	Substantial
<b>Overall Risk</b>	<b>Substantial</b>			<b>Substantial</b>

## **Procurement methods**

### **Selection of Consultants**

39. The Project Directorate shall use Standard Request for Proposal (SRFP) for selection of consultants. The following methods will be adopted depending upon the size and complexity of assignments and as agreed in the Procurement Plan.

- Quality and Cost Based Selection (QCBS);
- Quality Based Selection (QBS);
- Fixed Budget Selection (FBS);
- Least Cost Selection (LCS);
- Selection based on Consultant’s Qualification (CQS);
- Single Source Selection (SSS); and
- Individual Consultants.

40. Short list of consultants for services estimated to cost less than US\$ 800,000 equivalent per contract may be composed entirely of national consultants in accordance with the provision of paragraph 2.7 of the Consultants Guidelines.

**Procurement of Goods, Works and non-consulting services**

41. **International Competitive Bidding (ICB):** There are no ICB contracts for the project.

42. **National Competitive Bidding (NCB):** Procurement of goods, works and non-consulting services shall be conducted in accordance with paragraph 3.3 and 3.4 of the World Bank Procurement Guidelines. For this project, **no major works contracts are foreseen.** For the procurement of goods, the IAs will use Bank Standard Documents (SBDs) and the following additional provisions shall apply:

- Only the model bidding documents for NCB agreed with the Government of India's Task Force (and as amended from time to time), shall be used for bidding.
- Invitations for bid shall be advertised in at least one widely circulated national daily newspaper (or on a widely used website or electronic portal with free national and international access along with an abridged version of the said advertisement published in a widely circulated national daily inter-alia giving the website/electronic portal details from which the details of the invitation to bid can be downloaded), at least 30 days prior to the deadline for the submission of bids
- No special preference will be accorded to any bidder either for price or for other terms and conditions when competing with foreign bidders, state-owned enterprises, small-scale enterprises or enterprises from any given State.
- Except with the prior concurrence of the Association, there shall be no negotiation of price with the bidders, even with the lowest evaluated bidder.
- Extension of bid validity shall not be allowed with reference to Contracts subject to the Association's prior review without the prior concurrence of the Association (i) for the first request for extension if it is longer than four weeks; and (ii) for all subsequent requests for extension irrespective of the period (such concurrence will be considered by Association only in cases of Force Majeure and circumstances beyond the control of the Purchaser/ Employer).
- Re-bidding shall not be carried out with reference to Contracts subject to the Association's prior review without the prior concurrence of the Association
- The system of rejecting bids outside a pre-determined margin or "bracket" of prices shall not be used in the project
- Rate contracts entered into by Directorate General of Supplies and Disposals (DGS&D) will not be acceptable as a substitute for NCB procedures unless agreed with the Association on case to case basis. Such contracts will be acceptable however for any procurement under the Shopping procedures.
- Two or three envelope system will not be used (except when using e-procurement system assessed and agreed by the Association)

43. **Shopping:** Shopping method in accordance with paragraph 3.5 of the Procurement Guidelines shall be adopted for procuring readily available off-the-shelf goods of value less than US\$ 100,000. For shopping procedure, list of vendors/contractors already registered with

government departments may be used for inviting quotations. The Procurement Plan should determine the cost estimate of each contract, and the aggregate total amount. The borrower should solicit at least three price quotations for the purchase of goods, materials, or services (non-consulting), to formulate a cost comparison report.

44. **Direct Contracting:** Goods, works and non-consulting services which meet the requirement of para 3.6 of the Bank Procurement Guidelines may be procured following the Direct Contracting method.

45. **Advance Procurement:** Retroactive financing up to an amount of 20% of the Credit amount will be available for financing expenditures incurred 12 months prior to the Financing Agreement signing date.

46. The below table describes the various procurement methods to be used for activities financed by the proposed Credit. These methods along with agreed thresholds will be reflected in the Procurement Plan. The thresholds indicated in the following table apply to the initial 18 month implementation period and are based on the procurement performance of the project; these thresholds will be modified as required.

**Table A.3.5: Procurement Methods**

<i>Category</i>	<i>Method of Procurement</i>	<i>Threshold (US\$ Equivalent)</i>
Goods and non-consultant services	Limited International Bidding (LIB)	wherever agreed by the Association
	National Competitive Bidding (NCB)	Up to 3,000,000 (with NCB conditions)
	Shopping	Up to 100,000
	Direct Contracting (DC)	As per paragraph 3.7 of Guidelines
	Force Account (only for NCS)	As per paragraph 3.9 of Guidelines
	Framework Agreement (FA) <sup>26</sup>	As per paragraph 3.6 of Guidelines
	Procurement from United Nations (UN) Agencies	As per paragraph 3.10 of Guidelines
	Selection Based on Consultants' Qualifications (CQS)	Up to 300,000
Consultants' Services	Single-Source Selection (SSS)	As per paragraphs 3.8-3.11 of Guidelines
	Individuals	As per Section V of Guidelines
	Particular Types of Consultants	As per paragraphs 3.15-3.21 of Guidelines
	Quality- and Cost-Based Selection (QCBS)/ Quality-Based Selection (QBS)/ Selection under a Fixed Budget (FBS) /Least-Cost Selection (LCS)	for all other cases
	(i) International shortlist (ii) Shortlist may comprise national consultants only	> 800,000 Up to 800,000

<sup>26</sup> DGS&D rate contracts may be used as framework agreement (FA) provided:

- Use of DGS&D rate contracts as FA must be reflected on the procurement plan agreed by the Association for particular goods.
- Before issuing the purchasing order, the implementing agency will carry out a price analysis on the specific good that is intended to be purchased. If after this due diligence the implementing agency concludes (and Association agrees) that the DGS&D rate contracts are more advantageous, DGS&D rate contracts may be used as FA.
- To meet the Association's requirements for right to audit and F&C, these clauses may be included in the Purchase Orders (in case the purchasers are directly placing the purchase orders to DGS&D rate contract holders). On the other

47. **Prior Review by the Association:** The Association will prior review the following contracts:

I. Goods: All contracts more than US\$1 million equivalent

II. Services (other than consultancies) and IT systems: All contracts more than US\$1 million equivalent;

III. Consultancy services: > US\$500,000 equivalent for firms and > US\$200,000 equivalent for individuals.

48. In addition, the justifications for all contracts to be issued on the basis of LIB, single-source or direct contracting (except for contracts less than US\$50,000 in value) will be subject to prior review. The above thresholds are for the initial 18 month implementation period; based on the procurement performance of the project, these thresholds may be subsequently modified. The prior review thresholds will also be indicated in the Procurement Plan. The Procurement Plan will be subsequently updated annually (or at any other time if required) and will reflect any change in prior review thresholds as well as changes in thresholds for procurement methods. The Association will carry out an annual ex-post procurement review of the procurement falling below the prior review thresholds provided above.

49. **Implementation support.** The Association will normally carry out implementation support missions, including review and support on procurement, on a semi-annual basis. Mission frequency may be increased or decreased based in part on the procurement performance of the project.

50. **SEPA:** An online Procurement Plan Execution System (SEPA) shall be adopted to prepare the Procurement Plan once the initial Procurement Plan has been agreed. It is a web-based tool owned by the Bank which helps in tracking dates of the different stages of a procurement activity that are planned or under implementation. The system establishes a new, easy to use, and more efficient way for Bank teams and the clients to interact, while at the same time providing an audit trail of the process. The Bank will make arrangements to train the staff of PD in operating SEPA.

51. **Complaint Handling Mechanism:** The PD shall establish a complaint handling mechanism to address complaints/grievances from contractors/suppliers more effectively. On receipt of complaints, immediate action will be initiated to acknowledge the complaint and redress within a reasonable timeframe. All complaints during bidding/award stage as well as complaints during the contract execution along with the analysis and response of the PD shall invariably be submitted to the Association for review.

## 52. **Anti-Corruption Measures**

- i. **Disclosure Requirements:** The project shall comply with the disclosure requirements stipulated in the Bank's Procurement Guidelines and Consultant Guidelines, January

---

hand, if indent is placed through DGS&D, the Purchaser has the option to sign a separate undertaking with DGS&D rate contract holder, where Association's right to audit and F&C clauses could be mentioned.

2011. Accordingly, the following documents shall be disclosed on the project's website: (a) Procurement Plan and all subsequent updates; (b) invitations for bids (IFB) for goods; (c) requests for expression of interest (REOI) for selection/hiring of consulting services; (d) short list of consultants; (e) contract awards; (f) lists of contracts following Direct Contracting (DC), Consultant Qualification Selection (CQS), or Single Source Selection (SSS) on a quarterly basis; and (g) action-taken reports on the complaints received on a quarterly basis.
- ii. The following details shall be published by the PD through client connection or sent to the Bank for publishing on their behalf on the Bank's external website and UNDB *online*: (a) General Procurement Notice (GPN); (b) requests for expression of interest for consulting services estimated to cost more than US\$ 300,000; and (c) contract award details of all consulting services, with estimated cost of more than US\$ 300,000. The project shall also publish on its website any information required under the provisions of disclosure, as specified by the Right to Information Act of India.

53. *Use of government institutions and enterprises.* Government-owned enterprises or institutions in India may be hired for activities of a unique and exceptional nature if their participation is considered critical to achievement of project objectives. In such cases, the conditions provided in clause 1.13 of the Consultant Guidelines will be satisfied.

### **Social Management Safeguards**

54. ***Social Impacts:*** The project involves limited construction activities such as establishing/upgrading higher education facilities such as colleges, hostels, library buildings, etc. These activities are not expected to cause any significant environmental or social impacts. Likely environmental and social impacts, which will be limited in nature, may include temporary construction related impacts. Compulsory land acquisition has been ruled out as an option; construction activities will be carried out on "government lands free from encumbrances" identified and assigned for the purpose within the existing/identified institutional premises. Hence the Association's safeguards policy on Involuntary Resettlement (OP/BP 4.12) has not been triggered. Some districts are inhabited by tribal communities, and this is a state-wide operation. Therefore, the Association's safeguards policy on Indigenous Peoples (OP/BP 4.10) has been triggered.

55. ***Social Safeguards Measures:*** GOMP has carried out a SSA and prepared a SMF which includes a TDP and GESI guidelines. The SMF provides that mandatory social screenings will be carried out for all activities involving civil works and cleared with the PD in order to ensure that no civil works involving any involuntary resettlement impacts will be supported by the Project. The Bank team will monitor this social screening process as a part of safeguards supervision through random checks and field visits. The SMF has been finalized with free, prior, informed consultation held with the primary stakeholders. The SSA was carried out using both quantitative research methodologies, including a questionnaire based survey, intensive interviews, and focus groups discussions with male and female students from various social backgrounds, including ST and SC groups, and poor and disadvantaged communities. The SSA covers a range of issues including: (i) presence of ST, SC and women and poor students in college in percentage terms, (ii)

problems, disadvantages affecting academic performance of students including social and economic constraints and distance from colleges, (iii) schemes to support poor and socially disadvantaged student groups, (iv) placement services and employment opportunities, (v) infrastructure issues, and (vi) implementation systems. Key recommendations included: additional support schemes, better infrastructure facilities, remedial classes, etc.

56. ***Gender Equity and Social Inclusion and Tribal Development Plan.*** The SMF has special provisions for enhancing outreach to SC, ST, women, poor, and physically challenged and vulnerable persons. Key gender and social inclusion elements incorporated in SMF and TDP include:

- (a) Continuation and enhancement of special support schemes for ST, SC, female, and poor students;
- (b) Promoting greater participation of students and local communities in managing campus environments;
- (c) While setting up the State Institute for Higher Education Research and Training and Centres of Excellence, paying special attention to themes such as: (i) community development and social welfare, (ii) women development, (iii) social research methodology, and (iv) audio-visual educational material development for physically challenged and rural students;
- (d) Monitoring implementation and outcomes with gender and socially segregated data;
- (e) Carrying out supplementary studies on (i) effectiveness of existing student support schemes, (ii) meeting education needs of students in disadvantaged areas with special emphasis on skill development including through community collages; (iii) special needs of tribal and disadvantaged students; and (iv) HE needs in disadvantaged areas;
- (f) Consultation framework to interact with experts and students (especially ST, SC, vulnerable and women students with special attention to disadvantaged areas) and community representatives regarding the project on a periodic basis.
- (g) Key measures to address special needs of the physically challenged students will include: (i) review of financial aid to disadvantaged students (including the physically challenged) as a first year DLI, (ii) reviewing and improving collection and management of data on disabled students; (iii) Strategic Plan grants with implementation guidelines for activities in support of disabled students, (iv) Institutional Report cards reflecting data on disabled students.

57. ***Borrower's Social Safeguards Management Capacity:*** The institutional arrangements for implementing the project will integrate capacity and professional expertise to plan and implement actions in fulfilment of the SMF. The PD will have professional consultants to manage social and environmental management issues. The PD may hire consultants or NGOs for supporting field-level implementation of specific social and environmental actions. The DHE will have to enhance its implementation capacity with hiring consultants and NGOs, if required. It will strengthen district level staff capacity to technically support, coordinate, monitor and report SMF implementation. The Bank safeguards team will work closely with the PD to address social and environment aspects, including through field visits and training support.

58. ***Monitoring and Evaluation.*** Safeguards monitoring will be an integral part of the above monitoring system. At the state level, there shall be a five-member Advisory Committee on Social

Inclusion and Campus Environment (SICE), comprising reputed representatives from civil society having experience and expertise in gender, social inclusion, education, and environment issues. The SICE Committee will meet once a quarter and shall discuss the key social inclusion, gender and campus environment issues in the state's HE sector and advise the PD regarding actions on subjects brought to its notice. The monitoring indicators shall be informed by social and environment considerations. The Lead Colleges will play a key role in flagging campus environment and GESI issues including those relating to the TDP before the PD and the SICE Advisory Committee. Regular performance monitoring of EMF and SMF implementation will be carried out by the internal oversight mechanisms of the project as described above. Annual SMF implementation review shall be carried out in addition to mid-term and end-term evaluations for recording lessons and ensuring implementation quality with necessary capacity building measures as necessary.

59. **Grievance Redress Mechanism.** Every participating college including the Lead Colleges and the Centers of Excellence have established Sexual Harassment Cells and Complaints Handling Mechanisms. The DHE has GRMs at the district and at the state level. The state government has established an online grievance helpline for registering citizen complaints. At the PD level, the SICE Advisory Committee and the PD will address any complaints relating to implementation of the SMF including the TDP.

60. **Stakeholder Consultations:** The key elements of the project's citizen engagement strategy include: (i) consultations with primary stakeholders during project planning and implementation, (ii) information disclosure and dissemination, (iii) GRMs, and (iv) feedback through third party monitoring. Primary stakeholders include ST students and communities, students, community groups, people likely to be affected by any temporary environmental and/or social impacts of project activities, and civil society. Secondary stakeholders include the DHE, faculty and staff of HEIs, academics, and the PWD. The SMF was prepared and has been finalized with free, prior and informed consultation held with the primary stakeholders. A state level stakeholder consultation was organized on March 31, 2015 to discuss the SSA findings, following which the DHE finalized and disclosed the SMF and EMF on its website. The project will continue to hold stakeholder consultations as a part of project implementation.

61. **Risks and Mitigation Measures:** The social risks associated with the project are moderate. These include: (a) people's higher expectations and demands for wider coverage of HEIs and provision of facilities beyond that supported by the project; (b) weak implementation capacity and lack of client exposure to the Association's safeguards policies; and (c) concerns among civil society that the project does not adequately reach out to disadvantaged areas and socially vulnerable groups.

62. The above risks will be mitigated through the following key steps:

- A communication and stakeholder engagement strategy to explain the scope and limitations of the project, emphasizing key project objectives;
- Staff training, outsourcing expertise, and establishing the SICE Advisory Committee;
- Carrying out analytical studies to review ongoing support schemes for students;
- Establishing guidelines to strengthen outreach to disadvantaged areas and vulnerable groups;

- Independent quality monitoring mechanisms to identify and address any emerging issues and risks; and
- Undertaking impact evaluations during the implementation phase.

63. **Disclosure:** The SSA and the SMF, including the TDP and GESI Guidelines, have been disclosed on the DHE's website and on the Bank's Infoshop on April 20, 2015. The project has a system to disclose the lists of student beneficiaries of different support schemes at the HEI level. The project implementing agencies will disseminate project information brochures amongst key stakeholders and inform the affected people explaining their entitlements and contact details of GRM.

### **Environment Management and Safeguards**

64. While the project interventions, on the whole, will have a positive impact on the HE sector of MP, specific interventions (under Component 1) envisaged under the project such as construction of new buildings/blocks and/or refurbishment/retrofitting/major repair works of existing academic blocks/laboratories/libraries/hostels may have some potential but limited adverse environmental impacts in the local context. Therefore, these activities are central to the approach and design from an environmental management and safeguards perspective for the project.

65. **Environmental Issues/Impacts:** Environmental impacts which require attention pertain to: (a) location (environmental features of the site and surrounding land-uses); (b) design (sanitation, water supply, drainage, solid waste arrangements, waste water management, ventilation, access, energy efficiency, material usage, fire safety, storage facility and natural disaster dimension); (c) construction and worksite safety management, including occupational health and safety of construction workers, public safety issues, dust and noise, management of materials, their sources and debris/waste material; and (d) operation/maintenance aspects of physical assets such as buildings, laboratories (such as sanitation, waste management, e-waste handling, landscaping, creation/maintenance of activity/sitting spaces, and cleanliness/hygiene in the campus and its various facilities). Also, any refurbishment/repair/retrofitting works may require specific student and worker safety measures during construction if they involve removal of asbestos (which can be identified only when the civil works assessment is carried out during implementation).

66. While it is expected that the new buildings/blocks would be located within existing college campuses and/or on available government land, planning, construction and operation of HE facilities, including buildings and supporting infrastructure, would require appropriate consideration and integration of environment, health and safety measures to ensure that adverse environmental impacts are minimized and properly managed. More so, the largely poor state of existing infrastructure requires that environment management dimensions are specifically introduced/enhanced to help create better learning and teaching environs within the HEIs of the state and achieve the desired project objectives.

67. In view of the project's potential impacts on the environment, the Association's safeguards policies on Environmental Assessment (OP/BP 4.01) and Physical Cultural Resources (OP/BP 4.11) have been triggered, and the project is designated as Category B. On the whole, with proper

management, the project interventions are not likely to cause large scale, significant or irreversible damage to the natural, physical or social environment.

68. ***Environment Assessment:*** A limited Environmental Assessment (EA) study was undertaken by the DHE for the proposed project with guidance from the Association team. The study provides an assessment of the potential positive and negative impacts from the proposed project activities under Component 1, relevant from an environmental management and safeguards perspective. As part of the EA, the current processes, systems and capacity of the DHE from an environmental management perspective were also reviewed.

69. ***Environment Management Framework:*** To effectively plan, design and integrate environmental dimensions into the over-all project preparation and implementation, an EMF has been prepared. The framework provides guidelines for site selection, design (including that for the physically challenged), construction and maintenance of environment-friendly HEIs in line with relevant policy, legal and regulatory requirements of GOI, GOMP and the environmental safeguard policies of the Association. The EMF has been informed by the results of a limited EA exercise that was conducted by the DHE and benefits from the experiences gained from the Vocational Training Improvement Project (VTIP) and TEQIP II, both currently under implementation and funded by the Association

70. The key elements of the EMF developed for the project include a screening exercise to identify/ascertain availability of unencumbered site for new construction. The mitigation and management measures required to deal with temporary construction related impacts such as health and safety, labour, accident risks, dust and noise, sanitation and waste management have also been provided in the EMF. Beyond the regular environment, health and safety dimensions, the project also offers an opportunity to improve the overall environmental footprint of HEIs by creating 'green buildings' or 'greener facilities' by adopting practices of water efficiency, energy conservation, wastewater recycling and reuse. Considerations of environment, health and safety dimensions would help in ensuring the soundness and sustainability of the project and help in achieving the larger quality related objectives.

71. ***Environmental Risks and Mitigation Measures:*** The environmental risks associated with the project are moderate. These include: (a) demand for more new buildings/colleges and limitation in capacity (human resource and technical) to appropriately create and maintain facilities; (b) lack of client's exposure to the Association's safeguards policies; and (c) lack of detailed norms and guidelines to create standard/basic infrastructure facilities. These risks will be mitigated through:

- Hiring of specific expertise from the market to support the PD, including one expert to specifically work on the green buildings;
- Development of norms to improve building design and maintenance under TA;
- Capacity building and staff training, both at state level and in the field;
- Development of a communications strategy to explain scope, coverage and limitations of the project;
- Creation of an Advisory Group at the State/Project level to guide Campus Environment Management;

- Independent quality monitoring mechanism to identify and address any emerging issue or risk; and
- Undertaking of impact evaluations during the implementation phase, including mid and end term.

72. ***Borrower’s Capacity to Plan and Implement the Safeguard Measures.*** While there is strong commitment and interest in the DHE for the project, there are institutional challenges and limitations in capacity to manage a project of this nature and scale. The institutional deficiencies/gaps exist in terms of staffing shortage, current poor state of infrastructure and lack of up-to-date technical knowledge on creating environmentally friendly, safe, healthy buildings and associated infrastructure. Looking at the importance of the project (specifically in the long term), complexities involved in the operation due to geographical spread and current limitations in institutional capacity, the preparation and implementation of the project require strong technical, advisory, environment safeguards and management support from consultants/agencies with relevant experience and expertise to help the government create and maintain an appropriate level of infrastructure, which is necessary for delivering quality HE.

73. ***Staffing for Environment Management:*** In light of the above, the institutional arrangements for implementing the project will integrate capacity and professional expertise to plan and implement actions towards fulfilling the requirements set forth in the EMF. The DHE/PD will enhance its implementation capacity by hiring consultants to technically support, coordinate, monitor and report EMF implementation, both at the state and at the district level. The PD will hire professional consultants to manage environmental management issues. This team will include a civil engineer and an architect/planner to support the EMF implementation, including the green building/campus initiatives. Specific capacity building will be required for staff involved in building design, construction and maintenance at the district and institute level to ensure that the vision of creating clean, safe and green campuses is actually realized on the ground.

74. ***Monitoring of EMF:*** Safeguards monitoring will be an integral part of the implementation and monitoring system of the project. Regular performance monitoring of EMF implementation will be carried out by the internal oversight mechanisms of the project described above. The Lead Colleges will play a key role in flagging campus environment issues. Regular/annual EMF implementation reviews shall be carried out in addition to mid-term and end-term evaluations for recording lessons and ensuring implementation quality with necessary capacity building measures as necessary.

75. Additionally, at the state level, there shall be an Advisory Committee on “Campus Environment Management”, comprising reputed representatives from civil society having experience and expertise in education, environment, health and safety and building design (specifically green building) issues. The Committee will meet once a quarter and shall discuss the key issues in the state’s HE sector and advise the PD regarding actions on subjects brought to its notice. The Independent Quality Audit consultants will have expertise in environment aspects. The monitoring indicators shall be informed by environment, health and safety considerations.

76. ***Consultations:*** Stakeholder participation is central to design and implementation of the project and provides for information sharing, consultation and collaboration measures. Guidelines

for consultation have been laid out in the EMF to ensure proper consultation and participation of stakeholders at the various stages, including preparation and implementation at the HEI level. The key elements of the strategy include: (i) consultations with primary stakeholders during project planning and implementation, (ii) information disclosure and dissemination, (iii) GRMs, and (iv) feedback on EMF implementation through third party monitoring.

77. In accordance with the Association's applicable safeguards policies, consultations have been carried out in selected colleges in the state, as part of the limited environment and social assessment process. The public consultation process has indicated that the stakeholders strongly support the proposed project. The feedback/inputs from these field based discussions have been primarily used for preparing the EMF. Additionally, state level consultation was carried out wherein key stakeholders from DHE, academics from colleges/institutions and NGOs were consulted in a workshop at Bhopal on March 31, 2015, wherein EA findings were shared and feedback on EMF was sought. The project will continue to hold stakeholder consultations as a part of EMF implementation.

78. **Disclosure:** The EMF has been finalized and disclosed on the DHE's website and on the Bank's Infoshop on April 20, 2015.

## **Arrangements for Results Monitoring and Evaluation**

### **A. Institutional Arrangements**

79. At the state level, the RUSA PD will be responsible for carrying out project M&E activities. These activities will include: (a) periodic sector and project progress reviews, (b) preparing and disseminating project progress reports (including reporting on the fiduciary and safeguards requirements of the project), (c) reporting on DLI achievements, and (d) feasibility studies, evaluations and other reports as necessary. The PD will be responsible for consolidating the M&E information according to the agreed Results Framework from all implementing agencies such as the supported HEIs and HE service providers, and the activities carried out by them.

80. At the institutional level, the Heads of the Institutions (Principals of Colleges, University Department Heads under the aegis of their Vice Chancellors) will be responsible for carrying out the M &E activities agreed. They will be supported by the institutions' IQACs which will maintain data records in standardized formats that will be used for reporting on progress on Strategic Plan activities and for preparing Institutional Annual Reports.

81. The M&E requirements and responsibilities of the implementing agencies will be described in detail in a PIP. These will include reporting on DLI achievements, and the verification protocols to be followed thereof.

82. The Project through Component 3 (Technical Assistance) will support the establishment of a sector MIS in MP. The MIS will include data from both supported and non-supported government and non-government HEIs. The frequency with which different types of data will be collected will be specified in an MIS manual. Capacity building on M&E activities and the MIS for the RUSA PD and HEIs will also be undertaken through this component.

## **B. Reporting Requirements**

83. *Review Missions:* Combined teams of GOMP and the World Bank will undertake joint review missions to assess project progress every six months during the project implementation period. The PD will report on project progress as per the results agreement framework and the DLI matrix, and ensure the collection of complete and credible data from all implementing agencies and participating centers. Each progress report will document the extent to which the project is on track in achieving the PDO, progress on agreed actions, identify key implementation issues and challenges, and make recommendations for future actions. The progress report will also provide evidence underlying the achievements, document implementation progress, and report on fiduciary and safeguards aspects of the project. Based on their findings, the review missions will agree on next steps to be undertaken by the PD to improve project implementation in the ensuing six months. Thematic area experts may be invited by the GOMP, SHEC and the PD, and the World Bank to participate in the review missions as necessary.

84. *Implementation Progress Reports (IPRs):* The PD will produce periodic IPRs showing the sources and uses of funds, procurement management and output monitoring.

85. *Base-line data and Standard Reporting Formats:* The collection of any outstanding baseline data will be completed by the PD within six months of the project becoming effective. Till such time the MIS for the sector and project is established, the PD will make adequate alternative arrangements for the collection, storage and analysis of this data. The PD will also develop reporting formats for each project component and ensure that data reporting by implementing agencies, and participating institutions such as training providers, is standardized.

86. *Mid-Term Review:* A Mid-Term review of the project will be carried out, along the lines of the joint review missions, roughly half-way through the project implementation period, as specified in the Financing Agreement.

87. *Reporting and verification of DLI achievements:* The PD will establish robust reporting and verification mechanisms using third-party monitors for the DLIs under Component 1. These reports must be shared with the Association as per the agreed disbursement cycle, and the findings from the verification reports, subject to the satisfaction of the Association, will be used as the evidence basis for re-imburement claims under this Component.

88. *Other Policy Studies and Reports:* As part of Component 3, the SHEC and the PD may commission, through experts/consultants policy and thematic area studies and surveys, formative assessments and impact evaluations of policy, practice and new interventions in the HE sector.

## **C. Sources of Data for Monitoring Outcomes and Outputs**

89. *Project Monitoring:* The PD will regularly monitor and document implementation of all project components as part of standard project monitoring. The PD will also establish a system for tracking project expenditures at the level of all implementing agencies, and will generate quarterly

FM reports. The Heads of HEIs supported by the IQACs will be responsible for monitoring and documenting implementation progress in their institutions.

90. Institutional data: A wide range of institutional data needed for planning is collected annually through the AISHE survey. This will form the basis of data collection from institutions.

91. Third Party Validation: The PD will commission as and when agreed studies carried out by external/third party agencies on project performance and implementation assessments. These studies by external agencies will complement internal monitoring.

#### **D. Capacity Development**

92. Component 3 will help develop the capacity of the PD and HEIs in carrying out the M&E activities under the project.

## **Annex 4: Implementation Support Plan**

### **INDIA: MADHYA PRADESH HIGHER EDUCATION QUALITY IMPROVEMENT PROJECT**

#### **Strategy and Approach for Implementation Support**

1. The strategy for implementation support has been formulated based on the nature of the project, its risk profile, and with a view to building client capacity to implement the project, focusing on results and learning.
2. The implementation support strategy combines traditional supervision with timely technical assistance and policy advice as necessary. Therefore, the implementation support strategy consists of: (a) six-monthly joint reviews, (b) interim but regular technical meetings and field visits by Bank staff, and (c) monitoring and reporting by the PD on project implementation progress and achievement of results, (d) capacity building of HEIs to implement the project and carry out M&E activities at their level, (e) independent validation of results as part of the verification protocols of DLIs, and (f) audit and FM reporting.
3. Six-monthly joint reviews: The Association together with the DHE and the PD will formally review the project every six-months during the entire period over which the project is active. It is expected that the frequency of implementation support missions will be greater in the first 12 months after project effectiveness. The joint reviews will focus on all aspects of project implementation including achievement of project outputs, FM, and procurement performance, and social and environmental safeguards compliance. The PD will share with the Association an Implementation Progress Report in an agreed format at least 30 days before the start of each joint review. The joint review team will identify key issues affecting project performance and will prepare a list of key actions to be undertaken by the PD towards mitigation and improved implementation.
4. In addition to the review missions, other missions will be undertaken especially in the first 12 months, to help accelerate implementation, and to provide technical assistance and advice to the GOMP and the PD in a timely manner. The Bank teams for the reviews and missions will include – Bank staff, HE and M&E specialists, and FM, Procurement, Environmental and Social Safeguard, and Governance specialists. The precise composition of the team at any one time will be determined by specific implementation requirements. The Bank team will also participate in stakeholder workshops organized by the client, as and when necessary.

#### **Implementation Support Plan**

5. Most of the Bank team members are based in New Delhi, with staff from Washington D.C. scheduling visits in advance to ensure that support given to the client is timely, efficient and effective. During the formal and interim reviews, detailed inputs from the Bank team will comprise :

- a. **Technical inputs:** These will be provided to the implementing agencies to facilitate project implementation activities. Technical inputs will include any assessment and support that is required that contractual processes and obligations on the part of the client are duly met. The Bank team will review terms of reference and concept notes prepared by the client to implement specific project activities. The (PIP), which will be a living document, will be reviewed and revised as necessary jointly by the Bank team and the client.
- b. **Fiduciary inputs:** The Bank team will support the client through training and other capacity building needs with respect to FM and procurement. There will be six-monthly procurement and FM reviews. Any timely support required by the client on fiduciary requirements of the project will also be provided. Additionally, the Bank's FM and procurement specialists will support the client through any technical assistance on the use of the agreed FM and procurement plans.
- c. **Safeguards:** The Association will monitor compliance with the TDP and EMF during the joint reviews, and technical guidance will be provided accordingly.
- d. **Operations:** An Operations Officer will provide guidance on and supervision of all operational aspects.

A summary of implementation support is provided in Tables A.4.1 and A.4.2.

**Table A.4.1 Staff Resource Estimates for Project Implementation Support**

<i>Time</i>	<i>Focus</i>	<i>Skills Needed</i>	<i>Resource Estimate</i>	<i>Partner Role</i>
First twelve months	Technical support	HE Specialist M&E Specialist Operations Officer	8 SW*s 8 SWs 8 SWs	NA
	Fiduciary training and supervision	FM Specialist Procurement Specialist	8 SWs 4 SWs	
	Social and Environment monitoring and reporting	Social Development Specialist Environment Specialist	2 SWs 2 SWs	
	Team Leadership	Task Team Leaders	24 SWs	
12-60 months	Technical Support	HE Specialist M & E Specialist Operations Specialist	16 SWs 16 SWs 16 SWs	NA
	Fiduciary Monitoring and Reporting	FM Specialist Procurement Specialist	8 SWs 4 SWs	
	Social and Environment Monitoring and Reporting	Social Development Specialist Environment Specialist	6 SWs 6 SWs	
	Team Leadership	Task Team Leaders	32 SWs	

\*SW=Staff Weeks

**Table A.4.2 Skills Mix Required**

<i>Skills Needed</i>	<i>Number of Staff Weeks</i>	<i>Number of Trips</i>	<i>Comments</i>
Higher Education Specialists	24 SWs	Field Trips as required	Country office and HQ based
M & E Specialist	8 SWs	Field Trips as required	Country office based
Operations Officer	24 SWs	Field Trips as required	HQ based
FM Specialist	24 SWs	Field Trips as required	Country office based
Procurement Specialist	24 SWs	Field Trips as required	Country office based
Social Specialist	8 SWs	Field Trips as required	Country office based
Environment Specialist	8 SWs	Field Trips as required	Country office based
Task Team Leaders	48 SWs	Four annually	Country office based

## Annex 5: Economic and Financial Analysis

### INDIA: Madhya Pradesh Higher Education Quality Improvement Project

#### Introduction

1. This annex discusses the likely benefits and costs resulting from project objectives and activities. It begins by providing a theoretical and empirical basis for investing in HE in MP. Thereafter, it presents the results of a cost-benefit analysis, which yields an economic internal rate of return of 31 percent. The note also discusses possible risks to the project and undertakes a risk analysis.

#### Sector Background: HE and MP's Growth Agenda

2. MP will gain substantially by strengthening its HE system. As of 2012-13, MP's GER in HE stood at 19.5%, close to the national average of 21.1% (AISHE, 2014). At least three reasons suggest the situation is far from optimal. *First*, the national average itself is low, when compared to other emerging economies such as Brazil and China, where the GER in HE exceeds 30%. *Second*, quality and equity concerns get masked by overall satisfactory access and averages. In the age group 18 to 23 years, only 13.1% of SC students and 7.5% of ST students are enrolled in HE. This is especially important, since the state has a large tribal population (21.1% v/s national average of 8.6% as per the 2011 census). Indeed, MP has nearly 15% of India's tribal population. In general, and within social categories, enrollment rates of women fall behind those of men — only 36% of enrollments comprising women students, relative to a national average of 45%. Further, nearly a quarter of MP's districts are remote and classified as educationally backward by the UGC (lower than average GER). *Third*, MP has a higher than average demand for skilled workers as the fastest growing state in the country (11% SDP growth in 2013-14). This growth has not been accompanied by a structural change as yet (agriculture accounted for 30.7% of NSDP in 2013-14 as against the national average of 13.9%). As structural change happens, the demand for skilled workers will increase. MP's economic growth will depend considerably upon how successfully it can meet this demand.

3. The returns to HE, both private and societal, are enormous. Across countries, private benefits include better jobs, both in terms of type of job (white-collar), income and contract. The data suggest this is true for MP as well. As Table 1 shows, in MP, 83.5% of workers with white collar jobs (legislators/senior officials, professionals, technicians and associated profiles and clerks) have at least an UG degree. The corresponding figure for those in elementary and other low-skill occupations is 35%. Importantly, as the table shows, a much larger percentage of workers with HE in the state have long-term written job contracts, social security benefits, paid leave and employment in medium-large enterprises.

**Table 1: MP Occupations and Employment Conditions by Level of Education (%)**

Occupation (NCO 2004 classification)	Education Level			
	Higher Secondary	UG Degree (General)	PD Degree (Technical)	Postgraduate (and above)
Legislators/Senior Officials	15.32	16.85	19.51	19.37
Professionals	3.18	14.8	39.02	22.54
Technicians and associated profiles	12.28	27.24	24.39	34.29
Clerks	4.05	9.92	0	7.3
Service, shops and market sales	17.77	11.02	2.44	6.03
Skilled agriculture and fisheries	26.73	13.54	7.32	7.62
Craft and related trades	9.1	3.46	2.44	0.63
Plant and machine operators	4.48	1.73	4.88	1.9
Elementary occupations <sup>27</sup>	7.08	1.42	0	0.32
Total- White Collar Occupations <sup>28</sup>	34.83	68.81	82.92	83.5
<b>Employment Conditions</b>				
Long term, written job contract <sup>29</sup>	52.1	66.29	76.92	72.73
Availability of social security benefits <sup>30</sup>	55.27	67.8	65.38	76.56
Eligible for paid leave	64.56	79.83	84.62	90.38
Employed in a enterprise with >20 workers	9.96	16.79	23.68	20

Source: National Sample Survey (NSS), 68<sup>th</sup> Round.

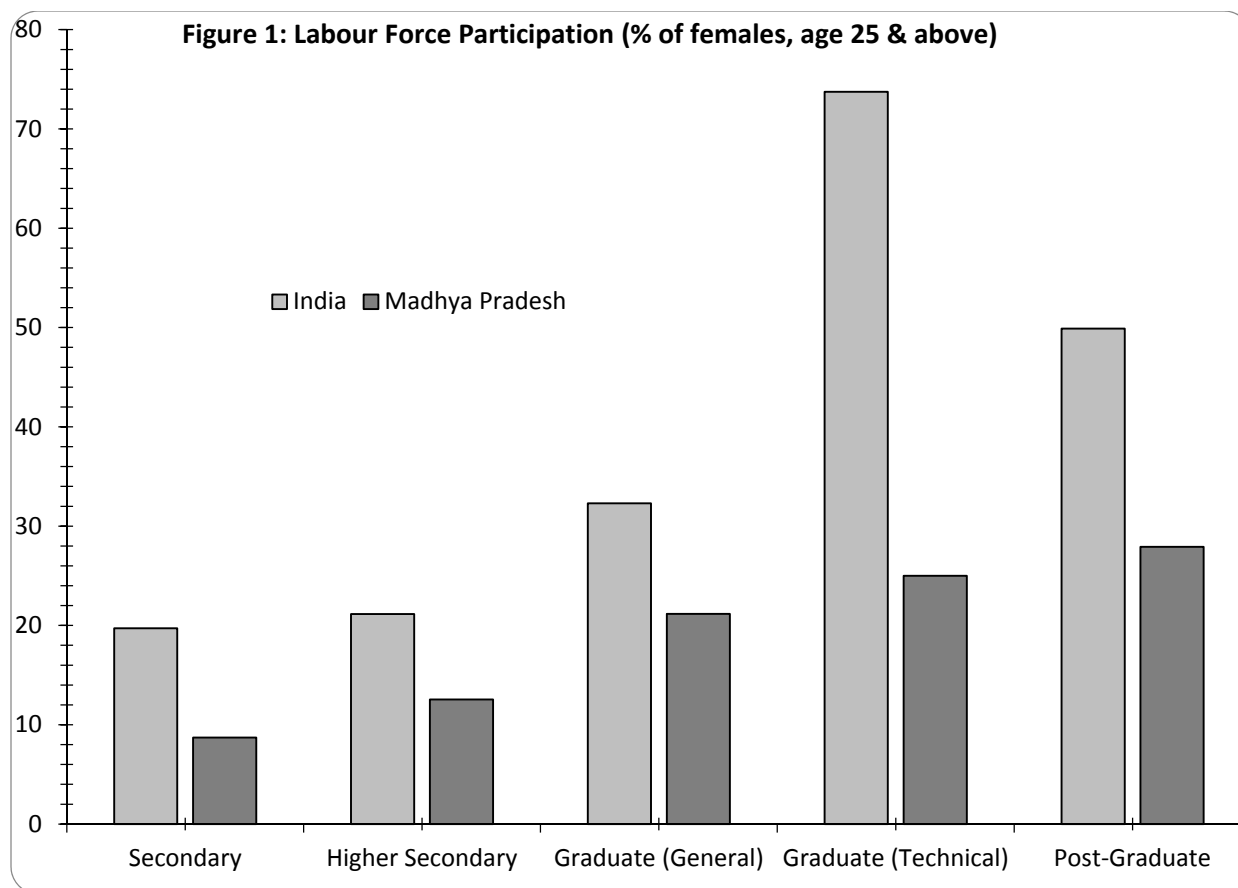
4. Private returns to HE being high does not automatically guarantee high enrollment. Although private returns are considerable, access issues and socio-economic constraints often preclude different social groups, especially women and SC/ST, from participating in HE. This impacts their labor force participation rates. Women, especially, have much lower labor force participation rates in MP relative to women in the rest of India who in any case have lower participation rates relative to men (see Figure 1) and also in international terms.

<sup>27</sup> Low skill work in agriculture, sales and services, manufacturing, mining, construction and transport

<sup>28</sup> Legislators/senior officials, professionals, technicians and associated profiles, clerks

<sup>29</sup> One year or longer

<sup>30</sup> Entitled to one or more of provident fund/pension, gratuity, healthcare & maternity



Source: NSS 68<sup>th</sup> Round (2011-12)

5. Importantly, small numbers of women going in for advanced educational degrees (see Table 2) means low representation of women in the faculty of HEIs. Equally, financial market imperfections put brakes on optimal participation for disadvantaged groups, making it especially important for the government to intervene with loans and scholarships.

**Table 2: Females as a % of enrolment by level of degree**

Level of degree	% of Females
UG	41.1
Masters & equivalent	43
MPhil	46.2
PhD	38

Source: AISHE 2012-13

### **Rationale for Public Investment in HE in MP**

Not all branches of HE have high private returns, but these branches are nevertheless important for overall economic growth and development. Within HE, the returns to technical education tend

to be the highest across the world.<sup>31</sup> India is no exception, and as our calculations suggest, nor is MP [see sheet 3 in excel, will put in main text when numbers finalized]. Unsurprisingly, given the high rates of private return to technical education, students are willing to pay, and much of this market is catered to by the private sector. Indeed, in India, approximately 80 percent of all engineering colleges are private, and 90 percent of all engineering students are enrolled in private colleges. A similar situation prevails in MP. This raises an important question: why not focus only where the returns are highest? The reason for taking a more rounded approach is that for an economy to thrive, a whole range of occupations and professionals are needed, such as administrators, scientists, lawyers, politicians, writers, artists and so forth. These occupations form the foundation for growth and innovation. But because of relatively low private returns, there are market failures, making the role of the government fundamental in promoting streams of study that help individuals thrive in these occupations. The follow-up question then is whether the government needs to fund technical institutes, given that the private sector caters to this segment. Indeed, there is need for government intervention here for two reasons. First, there are gross inequities in access to technical education, much more than general HE, necessitating government participation. As Table 3 shows, in MP, private institutes rarely cater to rural areas — government institutes are far more prevalent in rural areas than private ones.<sup>32</sup> Further, women and low caste groups are more likely to attend government technical colleges.

**Table 3: Enrolment in Technical Education by Type of Institution in MP (in percentages)**

Type of Institution	Male	Female	Rural	Urban	ST	SC	OBC	General
Government/Local Body	54.05	56.25	85.71	50	100	60	68.75	39.29
Private Aided	24.32	37.5	0	32.61	0	40	12.5	39.29
Private Unaided	21.62	6.25	14.29	17.39	0	0	18.75	21.43

Source: NSS 64<sup>th</sup> Education Round (2007-08)

6. Second, there are considerable quality challenges in technical education. A recent study conducted by the World Bank and FICCI found that employers are not satisfied with the technical skills of newly graduated engineers.<sup>33</sup> Further, in MP, engineers earn considerably less than the all-India average (Table 4).<sup>34</sup> Quality improvement, among other things, depends upon better quality assurance procedures in all types of technical institutes, regulated by the government.

<sup>31</sup> In India, technical education covers programs in engineering, technology, management, architecture, town planning, pharmacy, applied arts & crafts, hotel management and catering technology.

<sup>32</sup> Note, the total sample size for this analysis is small (n=53).

<sup>33</sup> Rudraksh Mitra, Tara Bêteille and Toby Linden. 2015. 'Making Engineering Graduates in India Employable'. Draft. The World Bank.

<sup>34</sup> The All-India average does not include MP.

**Table 4: Employer Satisfaction and Salaries of Newly Graduated Engineers**

	<b>Madhya Pradesh</b>	<b>India (other than MP)</b>
<b>Sample Size</b>	98	641
Satisfied (very or extremely)	73	81
<b>Annual Salary</b>		
Mean (INR)	281367.3	327742.6
Median (INR)	240000	300000
<2,50,000	57.14	38.38
>=2,50,000,<5,00,000	33.67	46.33
>=5,00000,<7,50,000	9.18	13.1
>=7,50,000,<10,00,000	0	2.18

7. Finally, the societal returns to investing in HE are considerable, although not easy to measure. There is no direct work or data on the externalities from investing in HE for MP, but the literature suggests benefits to society and the economy accrue through a range of channels, including a more productive work environment, scientific innovation with widespread general benefits, better-functioning democratic institutions, careful use of natural resources, a healthier population and more effective (and meaningful) collective action (Carnoy et al, 2013). Importantly, in a fast globalizing world, information management, knowledge and innovation are key to economic success. Each of these depends upon a robust HE system.

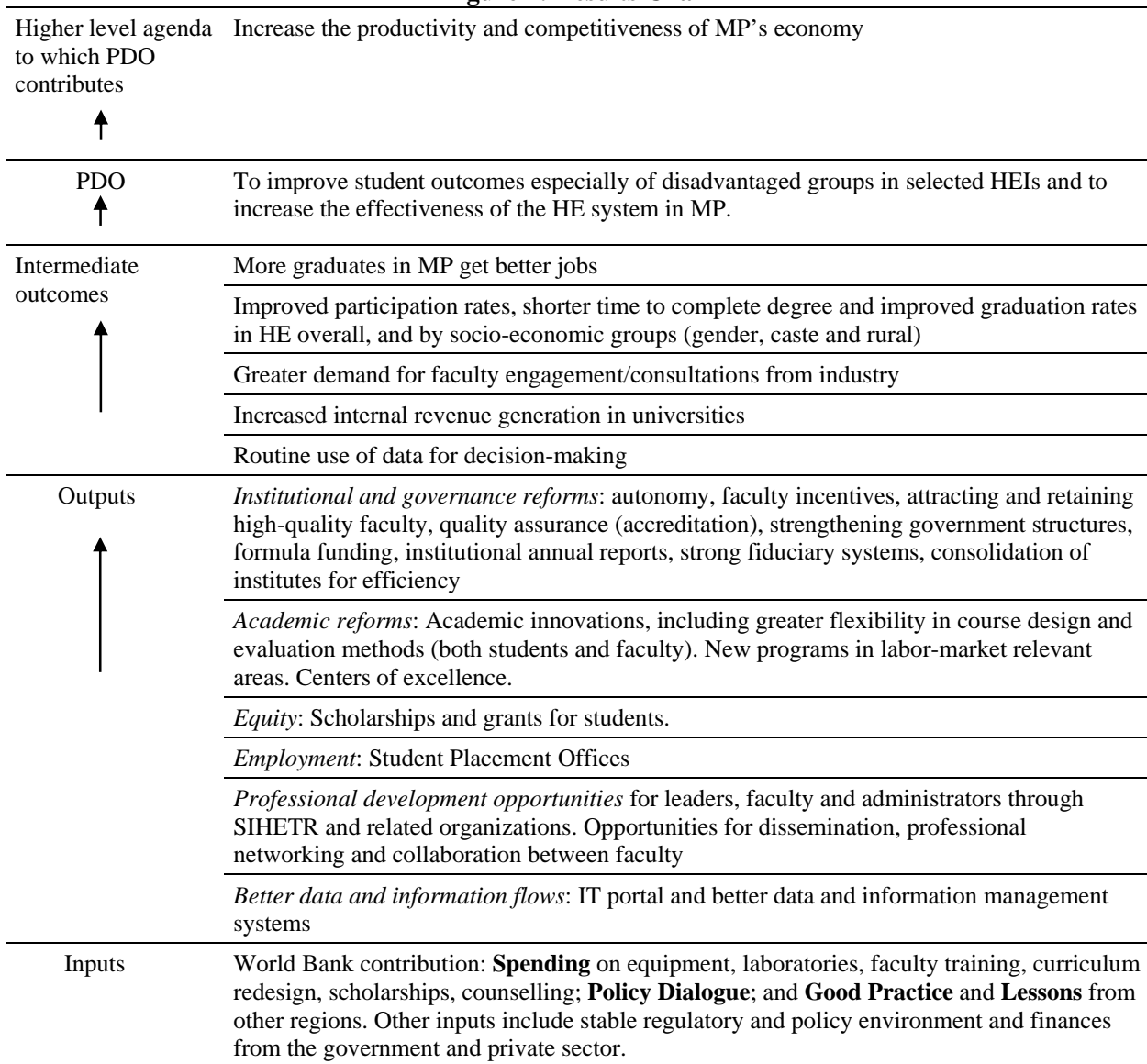
#### **Project PDO and activities (results chain)**

8. The PDO is “to improve student outcomes especially of disadvantaged groups in selected HEIs and to increase the effectiveness of the HE system in MP.” To achieve the PDO, the Project will support activities in six areas i.e., expansion and access, equity, excellence, employability, governance reforms and financial reforms. Figure 2 below presents the results chain.

9. The KPIs include:

- Number of project beneficiaries in all HEIs (% of which are female)
- On time graduation rates of undergraduate (UG) students (disaggregated by relevant categories) at supported institutions
- Government HEIs accredited by NAAC
- Government HEIs publishing an annual report in prescribed format
- Supported HEIs satisfaction scores of beneficiaries: percentage at least satisfied (disaggregated by relevant categories)

**Figure 2: Results Chain**



### Development Impact Rationale of Project

10. This section calculates the development impact of the project using cost-benefits analysis. It first describes the various benefits and costs associated with the project, both priced and unpriced. Thereafter, it focuses on those variables that are measurable. It begins by describing the equation for calculating the returns to education and possible modifications. Thereafter, it discusses how project costs have been measured. It presents a number of cost-benefit scenarios, based upon assumptions related to costs and benefits. Finally, it conducts a risk analysis.

#### a. Classification of Economic Benefits and Costs

11. Table 5 below lists the costs and benefits associated with the project, both priced and unpriced. There are pure benefits, such as increase in graduate earnings, and pure costs, such as project investments. There are also costs and benefits that cancel each other; reduced fees from

affiliation as colleges become autonomous is a cost for the university and government, but a benefit to the college. Where data are available, assumed parameters have been described (Table 6).

**Table 5: Priced and Unpriced Benefits and Costs**

<b>Benefits</b>		<b>Costs</b>	
<b>Priced</b>	<b>Unpriced</b>	<b>Priced</b>	<b>Unpriced</b>
Increase in graduate earnings due to (i) increase in graduates employed and (ii) better pay	General improvement in skill level of labor market entrants (across the board – government officers, lawyers, clerks, entrepreneurs and other white collar employees) and corresponding productivity gains	Project investments (GoMP)	
Increase in tax revenue as incomes rise	Improvement in areas of social development due to higher caliber workforce	Project investments (World Bank and other)	
Revenue from faculty consultancies	Improved responsiveness of HE sector to economy and societal needs	Interest repayments on loan	
Revenue from self-financing courses	Improved teaching and learning at other education levels as aspirations increase due to more and better opportunities	Student fees for courses in self-financing programs	
Returns on investment in R&D activities	Better management of the sector by the Department and of other projects in HE, such as RUSA	Additional maintenance costs generated by project for sustainability (e.g. Salaries of teachers hired on contract)	
Reduced fees from affiliation as colleges become autonomous (benefit for college)	Greater economic and social equity as education levels improve. Project interventions will target underserved groups. Social indicators improve as education levels rise.	Reduced fees from affiliation as colleges become autonomous (cost for university/government)	
Cost savings and improved efficiencies due to (i) consolidation; (ii) better data management; (iii) better FM; and (iv) better information flows (IT portal)		Opportunity cost of students in HE	
Reduced costs as students complete program faster			

**Table 6: Assumed parameters for base scenario**

Type of benefit	Unit of incremental benefit	Parameter	Assumed Value
Incremental increase in earnings of graduates	Graduate	Number of graduates	XX
		Annual increase in students (due to improved transition rates – so degrees completed faster)	XX
		Increase in employment rate	XX
		Improvement in earnings	XX
Internal revenue generation			INR 817 million expected for 2014-15 (5.1% of total funds available for HE)- from the state HE plan
Returns on investment in R&D			XX

*b. Explanation of calculations*

Returns to HE

12. NSS 68<sup>th</sup> (2011) round data is smoothed to generate the age-earnings profiles using the equation:

$$Y = a + b_1 \text{age} + b_2 \text{age}^2.$$

Where Y is annual earnings derived by multiplying earnings during the NSS reference week by 52. This equation takes away any fluctuations in earnings due to variations across individuals in the cross section. We do not estimate a rate-of-return equation since our purpose is to uncover the relationship between income and age, and not identify the underlying process that links education to earnings. A rate-of-return equation would try to identify the process, and importantly, such an equation is very difficult to specify correctly. We estimated this equation separately for senior secondary pass outs, general graduates and technical graduates in MP.<sup>35</sup>

The age earnings profile generated by the predicted Y's was used to generate the incremental returns to an UG degree using the formula:

*Incremental returns at age i = (Predicted earnings for a general (technical) graduate, generated by the age earnings profile, at age i) – (direct expenses on HE at age i (if studying)) – (predicted earnings for a senior secondary pass out, generated by the age earnings profile, at age i.)*

13. The last term on the right hand side of (2) is the opportunity cost of HE if the individual is enrolled in an UG program. If the individual is employed, it is his/her earnings in the 'no HE' case. The direct out-of-pocket expenses on HE were calculated using the NSS 64<sup>th</sup> (2007) education round (converted to 2011 prices). Finally, the lifetime return to a general (technical) degree was calculated as the net present value (12% discount rate) of the incremental returns from age 18 to

<sup>35</sup> The sample sizes are 246 for senior secondary completers, 352 for general graduates and 26 for technical graduates.

60. The resultant return was at 2011 prices and was converted to 2015 prices using the Consumer Price Index series.

### Project costs

14. Project costs are divided into three major components:
- I. The cost of increased enrolment borne by the MP government: The unit cost of UGs to the MP government is estimated using its RUSA perspective plan, which details UG enrolment and annual expenditure on HE. The projected increase in enrolment is based on project targets.
  - II. Project related investment costs, assumed to be 30% of total project funding (MP government + Association) based on the project design.
  - III. Project related incremental recurring costs, assumed to be 70% of total project funding (MP government + Association) based on the project design.

### Other variables

**Table 7: Variables Used and Details**

<b>Variable</b>	<b>Data Source</b>	<b>Definition/Comments</b>
Total general and technical UG enrolment	MP RUSA State Perspective Plan	Based on university and college records reported to the MP DHE.
Completion as a percentage of enrolment <sup>36</sup>	All India Survey of HE 2012-13	Completion is defined as passing the final year examination of an UG degree program. This variable was used in the absence of sufficient data to compute a graduation rate.

---

<sup>36</sup> A number of factors need to be considered when determining how the project will impact this percentage. A very high percentage of completers would imply that enrolment is ‘bunching up’ in the third year (presumably because students are allowed to pass the first and second year and are held back in the third year because they are not ready to receive a degree). A perfect system would have 1/3<sup>rd</sup> of enrolment in the third year, which would then impose an upper bound of 33% on completion as percentage of enrolment. Therefore, the current figure of 45% is too high. On the other hand, if students are bunched up in the third year, we would want more of them to pass, which would increase the percentage of completers. Given this, we project a slight increase after 3 years, and a return to the current figure 3 years after that.

Worker Population Ratio	NSS 68 <sup>th</sup> Round (2011)	Defined as (the number of individuals employed in a given population)/ (the number of individuals in the population). This measure is more appropriate than the employment rate of UG degree holders since a large proportion of graduates do not enter the labour force.
-------------------------	-----------------------------------	---

### Computing the Economic Internal Rate of Return (EIRR)

15. The economic gain from the project accrues from the sources mentioned in Table 6, but available data allow us to quantify gains accruing through two main sources:

A. The additional number of graduates employed due to the project, further divided into 3 components:

- The increase in students enrolled due to the project, who complete their degrees at the ‘with project’ completion rate and join work at the ‘with project’ worker population ratio.
- The increase in the number of completers due to the increase in the completion rate, who join work at the ‘with project’ worker population ratio.
- The increase in the number of completers joining work due to the higher worker population ratio.

B. The increased labour market premium for UG degree holders due to quality improvements and higher employability resulting from project activities.

Components A and B above are calculated separately for general and technical degree holders.

16. The free cash flow generated by the project each year is obtained by subtracting annual project costs from (A + B). We obtain the free cash flow up to 2055, the year the first ‘project cohort’ will leave the labour market. This is standard practice for education projects.

17. Finally, the free cash flow is discounted at 12%<sup>37</sup> to obtain the EIRR.

18. Our calculations yield an EIRR of 23%. This is a lower bound, given that we were not able to quantify other gains using existing data.

---

<sup>37</sup> Traditionally the World Bank uses discount rates of 10-12% for Bank funded projects. We use 12% to reflect the high opportunity cost of capital in a developing economy.

**Table 8: Summary of Cost-Benefit Analysis Results**

<b>NPV (INR)</b>	
Estimated Economic Benefit	<b>54,244,067,213</b>
Estimated Economic Cost	<b>44,887,860,514</b>
Free Cash Flow	<b>9,356,206,699</b>
<b>NPV (USD)</b>	
Estimated Economic Benefit	<b>834,524,111</b>
Estimated Economic Cost	<b>690,582,469</b>
Free Cash Flow	<b>143,941,642</b>

**Risk Analysis<sup>38</sup>**

19. Project success depends crucially upon how effectively risks and constraints are managed. Key risks arise from underdeveloped systems characteristic of low-income states, political interference, financing and implementation delays, compromises in areas of policy reform (such as autonomy and consolidation), the low quality of tertiary education entrants given poor school quality, low labor force participation of women despite consuming HE services, and brain drain, whereby talented and trained faculty leave the state. These factors are likely to impact project benefits and costs, making it important to quantify the risk of failure as best as possible.

We use Monte Carlo simulation techniques to estimate this risk, defining project failure as obtaining a negative net present value of free cash flows generated.

Every risk analysis problem involves making a choice about the level of disaggregation used. It is easier to make a judgment about the probability distribution of each individual component if a higher level of disaggregation is used and a lack of disaggregation can result in inaccurate judgments. However, disaggregation also necessitates a careful consideration of correlations between individual components, since studies have shown that these correlations are likely to have a larger impact on the outcome of the analysis than the distribution of any individual component.

20. We disaggregate project returns and costs into 5 principal components:
- i. The economic gain from more general UG program completers as well as higher employability and labor market premiums for general degree holders (gen).
  - ii. The economic gain from more technical UG program completers as well as higher employability and labor market premiums for technical degree holders (tech).
  - iii. The cost of higher enrolment borne by the state government (enr).
  - iv. Project related investment costs (ic).
  - v. Project related incremental recurring costs (irc).

---

<sup>38</sup> We do not present a 'sensitivity analysis' (what happens when major parameters are varied) because the Handbook for Economic Analysis says a 'risk analysis' (Monte Carlo simulations) is superior.

21. At this level of disaggregation, it is important to consider the correlation between components. For instance, the economic gain from general education (gen) is likely to be positively correlated to the gain from technical education (tech) since both depend on the success of a shared set of project activities. Similarly, higher project investment costs, say in the form of investment in laboratory equipment, are likely to lead to higher incremental running costs in the form of equipment maintenance.

22. We use the rank correlation method of Iman and Conover<sup>39</sup> to generate the required correlations in our Monte Carlo samples.

Assumed distribution of risks

23. All five components listed above are assumed to follow triangular distributions. The triangular distribution is the simplest and most commonly used distribution in risk analysis when the little or no sample data is available to estimate the required parameter distributions. It is defined entirely by its minimum value, most likely value (mode) and maximum value.

24. We set the mode of each component at the value obtained in our economic internal rate of return calculations and set maximum and minimum values as per the following table:

**Table 9: Risk Analysis Distribution**

Component	Lower Bound as a % of Mode	Upper Bound as a % of Mode	Mode (INR)
gen	75	110	25,773,644,786
tech	75	110	28,470,422,427
enr	90	120	2,520,976,120
ic	100	125	5,737,171,566
irc	90	120	36,629,712,829

25. The lower and upper bounds of the distribution are chosen in order to:

- a) Reflect the project design. For instance, investment costs are spread over fewer activities than incremental running costs and are, therefore, more likely to overshoot their estimated value.
- b) Arrive at a conservative estimate of the probability of project success by allowing for a greater likelihood of lower than estimated gains and higher than estimated costs.

**Table 10: Matric of Rank Correlation between Components**

	gen	tech	enr	ic	irc
gen	1	.25	0	0	0
tech	.25	1	0	0	0
enr	0	0	1	0	0
ic	0	0	0	1	.20
irc	0	0	0	.20	1

<sup>39</sup> Iman R, Conover W. ‘A Distribution-free Approach to Inducing Rank Correlation among Input Variables’. *Communications in Statistics-Simulation and Computation*. 1982;11(3):311–334

26. Finally, we use the Iman-Conover method to impose the following matrix of rank correlations on the components<sup>40</sup>. This method has several advantages:

- a) It is distribution free, i.e., it can be applied to any input distributions.
- b) Since it does not rely on creating a linear combination of the input variables, it is applicable to non-normal random variables.
- c) The original marginal distributions remain intact. The same input values are retained, only their pairing is affected to achieve the desired rank correlation.

**Results**

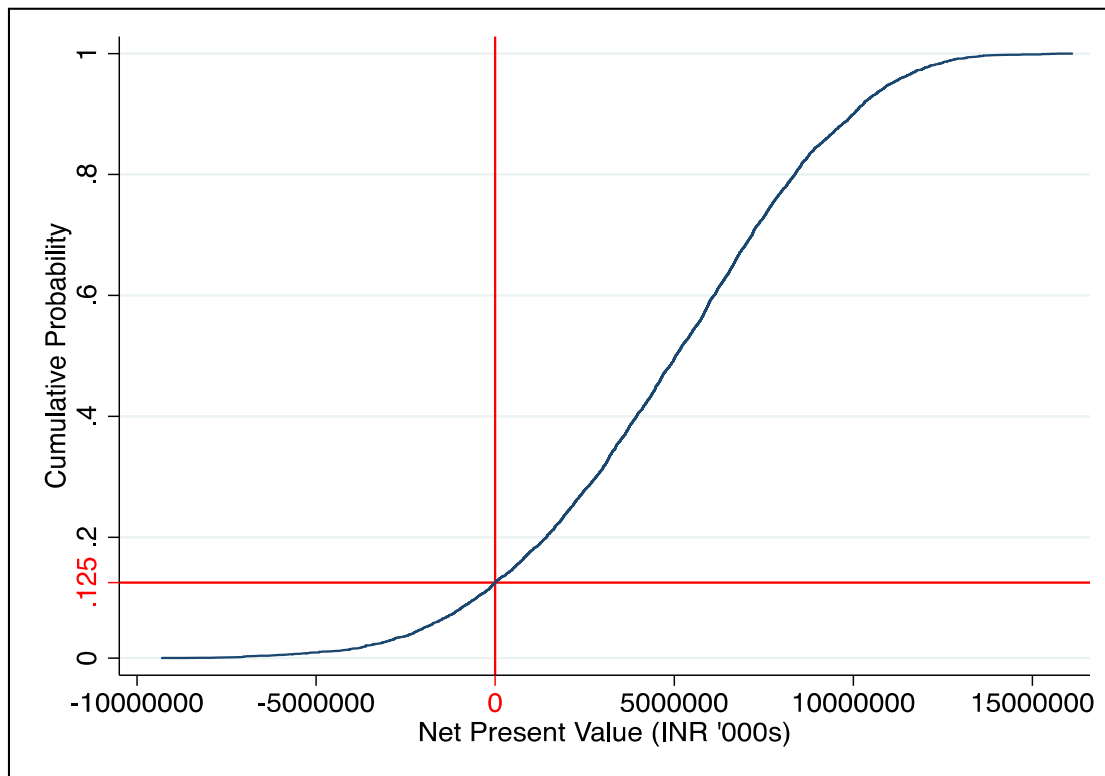
27. Based on 5000 repetitions, our simulations yielded the following estimates:

**Table 11: NPV Simulation Estimation**

NPV of Economic Benefits (INR '000s)	
Mean	4,852,259
SD	3,990,042
95% CI	[4,741,636, 4,962,882]

This implies a probability of project failure (negative NPV) of 12.5%.

**Empirical CDF of the simulated NPVs of economic benefits**



**World Bank Value Added**

<sup>40</sup> The R package ‘mc2d’, specifically the function cornode(), provides a straightforward way to implement the method.

28. Value added of the Bank's involvement in HE in MP is expected to come from the Bank's global as well as local technical and operational experience in HE. The Bank has already completed a study of MP's HE sector that combines detailed household survey data, primary data and international best practice to provide the state policy options tailored to its specific needs. As part of preparation work, it recently concluded a series of studies: (1) examining the impact of autonomy in selected HEIs; (2) examining the status and effectiveness of FM systems in MP for achieving the goals of the HE sector; and (3) a tracer study on student satisfaction and employment opportunities. The findings from these studies have been incorporated into the project design and will play a key role in ensuring effective implementation by identifying mechanisms to address constraints and inefficiencies. The Bank is also engaged in providing technical assistance services in HE to other low income states, so cross-state learning will take place.