

DOCUMENT OF
THE WORLD BANK

REPORT NO. 113124-IN

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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
PROGRAM APPRAISAL DOCUMENT
ON A
PROPOSED LOAN
IN THE AMOUNT OF
US\$119 MILLION
TO THE
REPUBLIC OF INDIA
FOR AN
ODISHA HIGHER EDUCATION PROGRAM FOR EXCELLENCE AND EQUITY
August 10, 2017

Education Global Practice
South Asia Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective as of July 31, 2017)

Currency Unit = Indian Rupee (INR)

INR 64.15 = US\$1

FISCAL YEAR

April 1–March 31

ABBREVIATIONS AND ACRONYMS

AG	Accountant General
AISHE	All India Survey of Higher Education
BRICS	Brazil, Russia, India, China, and South Africa
BIS	Bureau of Indian Standards
CAG	Comptroller and Auditor General
CAGR	Compound Annual Growth Rate
CBCS	Choice-based Credit System
CoE	Center of Excellence
CPCB	Central Pollution Control Board
CPS	Country Partnership Strategy
CPWD	Central Public Works Department
CQS	Selection Based on Consultants' Qualification
DC	Direct Contracting
DGS&D	Directorate General of Supplies and Disposals
DLC	District-level Consultant
DLFA	Directorate of Local Fund Audit
DLI	Disbursement-linked Indicator
DLR	Disbursement-linked Result
EAMP	Environment Audit and Management Plan
EHS	Environment, Health, and Safety
EIRR	Economic Internal Rate of Return
ESSA	Environmental and Social Systems Assessment
F&C	Fraud and Corruption
FBS	Selection under a Fixed Budget
FDP	Faculty Development Program
FM	Financial Management
FRR	Financial Rules and Regulations
FSA	Fiduciary System Assessment
GB	Governing Body
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GO	Government Order
GoI	Government of India
GoO	Government of Odisha
GRM	Grievance Redress Mechanism

GRS	Grievance Redress Service
GSDP	Gross State Domestic Product
HE	Higher Education
HED	Higher Education Department
HEI	Higher Education Institution
IDG	Institutional Development Grant
IDP	Institutional Development Plan
IFSA	Integrated Fiduciary System Assessment
IPF	Investment Project Financing
IT	Information Technology
IUFR	Interim Unaudited Financial Report
IVA	Independent Verification Agency
KPI	Key Performance Indicator
KRA	Key Results Area
LCS	Least-Cost Selection
LFAO	Local Fund Audit Organization
LIS	Low Income States
LOI	Letter of Intent
M&E	Monitoring and Evaluation
MoEFCC	Ministry of Environment, Forests and Climate Change
MIS	Management Information System
MHRD	Ministry of Human Resource Development
MOOC	Massive Open Online Course
MoU	Memorandum of Understanding
NAAC	National Assessment and Accreditation Council
NPV	Net Present Value
NSS	National Sample Survey
OEA	Odisha Education Act 1969
OHEP	Odisha Higher Education Program
OHEPEE	Odisha Higher Education Program for Excellence and Equity
OPHW	Odisha Police and Housing Welfare Corporation
OPRC	Operational Procurement Review Committee
PAP	Program Action Plan
PD	Program Director
PDO	Program Development Objective
PFMS	Public Financial Management System
PforR	Program for Results
PIM	Project Implementation Manual
PMU	Project Management Unit
PPSD	Project Procurement Strategy for Development
PRC	Peer Review Committee
PWD	Public Works Department
QBS	Quality-Based Selection
QCBS	Quality- and Cost-Based Selection
RBF	Results-based Financing
RDD	Rural Development Department
REOI	Requests for Expression of Interest
RTI	Right to Information
RUSA	<i>Rashtriya Uchhatar Shiksha Abhiyan</i>

RWD	Rural Works Department
SAMS	Student Admission Management System
SBD	Standard Bidding Document
SC	Scheduled Caste
SHEC	State Higher Education Council
SORT	Systematic Operations Risk-Rating Tool
SSA	Social Systems Assessment
ST	Scheduled Tribe
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
TEQIP	Technical Education Quality Improvement Project
TOR	Terms of Reference
UGC	University Grants Commission

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Practice Manager:	Keiko Miwa
Task Team Leader(s):	Kurt Larsen and Sangeeta Dey

INDIA

Odisha Higher Education Program for Excellence and Equity

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PAD DATA SHEET

Republic of India

Odisha Higher Education Program for Excellence and Equity (P160331)

PROGRAM APPRAISAL DOCUMENT

*South Asia Region
Education Global Practice*

Basic Information

Date:	July 26, 2017	Sectors:	Tertiary Education, Public administration - education
Country Director:	Junaid Kamal Ahmad	Themes:	Education
Practice Manager	Keiko Miwa		
Global Practice Vice President:	Keith Hansen		
Program ID:	P160331		
Team Leader(s):	Kurt Larsen, Sangeeta Dey		

Program Implementation Period:	Start Date: August 31, 2017	End Date: November 30, 2022
Effectiveness Date:	5 Years	
Expected Financing Closing Date:	October 31, 2017	
	November 30, 2022	

Program Financing Data

<input checked="" type="checkbox"/> Loan	<input type="checkbox"/> Grant	<input type="checkbox"/> [Other]
--	--------------------------------	----------------------------------

For Loans/Credits/Others (US\$, millions):				
Total Program Cost:	165	Total operation cost is 170	Total Bank Financing:	114 PforR + 5 IPF
Total Co-financing:			Financing Gap:	0
Financing Source			Amount (US\$, millions)	
BORROWER/RECIPIENT			51	
IBRD			119	
Total			170	

Borrower: Republic of India

Responsible Agency: Department of Higher Education, Government of Odisha

Contact: G.V.V. Sarma Title: Additional Chief Secretary

Telephone No.: 0674-2536862 Email: hedsec.od@nic.in

Expected Disbursements (in US\$, millions) Program for Results (PforR)									
Fiscal Year	FY18	FY19	FY20	FY21	FY22	FY23			
Annual	18	27	23	24	22	0			
Cumulative	18	45	68	92	114	114			
Otherwise									
Otherwise Expected Disbursements (in US\$, millions) – IPF (TA Component)									
Otherwise									
Fiscal Year	FY18	FY19	FY20	FY21	FY22	FY23			

Annual	1.5	1	1	0.5	0.5	0.5			
Cumulative	1.5	2.5	3.5	4	4.5	5			

Program Development Objective(s)

The Development Objective of the Program is to improve the quality of and students' equitable access to selected institutions and enhance governance of the higher education system in Odisha.

Compliance

Policy

Does the program depart from the CAS in content or in other significant respects? Yes [] No [X]

Does the program require any waivers of Bank policies applicable to Program-for-Results operations? 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]

Overall Risk Rating: Substantial

Legal Covenants

Name	Recurrent	Due Date	Frequency
Program Implementation Manual	X	Within 45 days after Effectiveness Date	Throughout implementation

Description of Covenant

Odisha shall prepare, approve and adopt a Program Implementation Manual in a manner and substance satisfactory to the Bank, and thereafter carry out the Operation in accordance with its provisions.

Name	Recurrent	Due Date	Frequency
Operations Manuals	X	Within 45 days after Effectiveness Date	Throughout implementation

Description of Covenant			
Odisha shall prepare, approve and adopt Operations Manuals for IDG Grant for Colleges and for Universities in a manner and substance satisfactory to the Bank, and thereafter implement the IDG Grants in accordance with the provisions of such Manuals.			
Name	Recurrent	Due Date	Frequency
Fiduciary, Environmental and Social Systems for the Program	X	N/A	Throughout implementation
Description of Covenant			
Odisha shall carry out the Program in accordance with financial management, procurement and environmental and social management systems acceptable to the Bank, including those set out in the ESSA, the Program Implementation Manual, the Operations Manual for IDG Grant for Colleges, the Operations Manual for IDG Grant for Universities, and the Program Action Plan.			
Name	Recurrent	Due Date	Frequency
Safeguards for the Project	X	N/A	Throughout implementation
Description of Covenant			
Odisha shall ensure that any consulting services including studies to be supported under the Project are carried out under terms of reference satisfactory to the Bank, which shall incorporate the requirements of the Bank's Safeguards Policies and be disclosed and consulted upon in accordance with the Bank's Safeguard Policies.			
Name	Recurrent	Due Date	Frequency
Verification of DLIs	X	Within one month after the Effectiveness Date	Throughout implementation
Description of Covenant			
Odisha shall appoint an independent verification agent (IVA) under terms of reference satisfactory to the Bank to carry out the verification of compliance of the DLIs, in accordance with the verification protocol agreed with the Bank.			
Team Composition			
Bank Staff			
Name	Title	Specialization	Unit
Kurt Larsen	Team Leader (ADM Responsible)	Senior Education Specialist	GED06
Sangeeta Dey	Team Leader	Senior Education Specialist	GED06
Satyanarayan Panda	Procurement Specialist (ADM Responsible)	Procurement Specialist	GGO06

Manvinder Mamak	Financial Management Specialist	Senior Financial Management Specialist	GGO24
Francisco Marmolejo	Team Member	Lead Education Specialist	GED06
Yoko Nagashima	Team Member	Senior Education Specialist	GED06
Tobias Linden	Peer Reviewer	Lead Education Specialist	GED01
Jason Allen Weaver	Peer Reviewer	Senior Education Specialist	GED03
Andreas Blom	Peer Reviewer	Lead Economist	GED13
Roberta Malee Bassett	Peer Reviewer	Senior Education Specialist	GED03
Kalyani Kandula	Environment Specialist	Consultant	GEN06
Neha Pravash Kumar Mishra	Environment Specialist	Senior Environment Specialist	GEN06
Kanchan Rajeevsingh Parmar	Social Safeguards Specialist	Consultant	GSU06
Mariam Nusrat Adil	Operations Analyst	Operations Analyst	OPCSQ
Mamata Baruah	Team Member	Senior Program Assistant	SACIN
Rudraksh Mitra	Team Member	Statistical Officer	DFGPE
Soumi Saha	Team Member	Consultant	GSP06
Surendra K. Agarwal	Team Member	Consultant	GED06
Sandesh Lokhande	Team Member	Consultant	GED06
Binayak Acharya	Team Member	Consultant	GED06
Victor Ordonez	Senior Finance Officer	Senior Finance Officer	WFALA
Rocio M. Malpica	Senior Counsel	Senior Counsel	LEGES

I. STRATEGIC CONTEXT

A. Country Context

1. **India, a lower-middle-income country with a gross domestic product (GDP) per capita of US\$1,582 (2015 U.S. dollar), has become one of the world's fastest growing economies.** India experienced high economic growth over the past five years, with the GDP growth rate averaging 5.4 percent from 2011 to 2015.¹ Despite the challenges of drought, flattening private investments, and declining exports, the GDP growth accelerated to 7.6 percent year on year in FY16. Rapid growth has been accompanied by a significant reduction in poverty levels and improved human development outcomes.

2. **India will soon have the largest and youngest workforce the world has ever seen.** The demographic dynamics and a rising age-savings profile are likely to generate significant volumes of savings and investment over the coming years. It is essential that this increase in the availability of capital is complemented by higher worker productivity to result in higher incomes. The national average schooling of the working age population, and consequently worker productivity, will increase by at least a full year until 2030, even with no further improvements in the educational attainment of today's youth, simply because younger cohorts are better, more relevantly educated.

3. **A key challenge India faces is that the growth and the accompanying improvements in human development outcomes have been distributed unevenly, and there are significant inequalities, including across states and social groups.** The seven low-income states (LIS),² in particular, lag behind on key indicators. As of 2011, 39.5 percent of the population in the LIS was poor against the national average of 23.6 percent,³ and per capita gross state domestic product (GSDP) was US\$494 in the LIS against US\$1,410 nationally in 2011. Further, other than the states of Bihar and Rajasthan, the LIS have grown at a slower rate than other states since 2005. Poverty reduction in these states has also been less responsive to growth than in the rest of the country, which can be attributed, at least in part, to poor human development outcomes in these states. Among social groups, poverty rates are the highest for the scheduled tribes (STs)⁴ who also lag behind on education outcomes, particularly at the secondary and higher education (HE) levels. The STs have shown the least improvement in intergenerational mobility in education and also display the worst indicators of child nutrition and mortality.⁵

4. **The Government of India (GoI) has developed an ambitious plan to transform India into a competitive, high-growth, and highly productive middle-income country with strong emphasis on increasing the supply of highly skilled workers to drive the economy, as well as helping LIS catch up with their more advanced neighbors.** Improving the quality and market relevance of tertiary education with more equitable access for STs, scheduled castes (SCs), and women is a key component of the GoI's overall effort to improve the country's competitiveness and address inequalities.

¹ Compound annual growth rate (CAGR) calculated using GDP at constant (2011–12) prices.

² Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, and Uttar Pradesh.

³ Head count ration (HCR) based on a poverty line of US\$1.25 per day (2005 purchasing power parity).

⁴ Poverty rate of 46 percent in 2011.

⁵ The World Bank Group India Country Partnership Strategy 2013–2017 (Report No. 76176).

5. **The Draft Three-Year Action Agenda (2017–18 to 2019–20) (published in April 2017) of the National Institution for Transforming India, also called *NITI Aayog*, highlights five major actions to be undertaken over the next three years in the higher education sector:** designation of world-class universities; autonomy for top colleges and universities; reform of the regulatory system (a tiered system of universities); establishment of a system of project/researcher-specific research grants, and increased focus on vocation and profession-led education.

6. **The state of Odisha is one of the LIS located in the eastern coast with a population of 43.7 million.** Income from agriculture, forestry, and fishery, on which most of the poor depend, remains volatile and excessively dependent on rainfall. In 2015–16, the state’s economy grew at a real growth rate of 6.24 percent, at market prices, with 2011–12 as the newly revised base year. With a per capita income of US\$1,150 in 2014–15,⁶ Odisha is among the poorest states in India. The state has performed better with regard to poverty reduction; 8.2 million poor people moved out of poverty between 2005 and 2012, moving Odisha from a rank of 30 in 2004 to 25 in 2012 among Indian states.⁷ STs comprise 22.8 percent of the state’s population, against an average of 8.6 percent nationally. The poverty rate of STs in Odisha is the highest nationally, at 63 percent, and educational attainment for STs is particularly poor, with only 2.1 percent of STs in Odisha having completed HE, against 13.7 percent of the general category population.⁸

B. Sectoral and Institutional Context

7. **India has made significant progress in expanding access to primary and secondary education over the past decade.** Access to primary education is nearly universal, with more than 98 percent of the school age population having access to a primary school. Despite disparities by state, income, and gender, the overall transition rate at the national level is now at 89.7 percent from primary to upper primary schools and at 92.6 percent from upper primary to secondary. The secondary education gross enrollment rate (GER) is 74 percent. At the primary and secondary levels, the policy focus is increasingly on quality of education and learning outcomes.

8. **HE in India has been expanding rapidly, but the enrollment rate lags compared to Brazil, Russia, China, and South Africa or other middle-income countries.** Enrollment has almost tripled from 8.4 million in 2001 to 22.5 million in 2014–15 with a GER of 23.6 percent. While this is comparable to the average of lower-middle-income countries (23.2 percent), it is lower compared to other BRICs (Brazil, Russia, India, China, and South Africa) or relatively large middle-income countries such as Brazil (33 percent), China (30.2 percent), Indonesia (31.3 percent), Malaysia (38.5 percent), Mexico (29.2 percent), and Russia (78 percent).

9. **The HE system in India has many challenges, especially the state universities and colleges, which enroll about 90 percent of the students.** In addition to very low access to HE in general, there are wide disparities between various social groups. The GERs for SCs, STs, and other classes are far below the average GER and those of other social groups. There is also a

⁶ Ministry of Statistics and Program Implementation 2015.

⁷ Odisha Economic Survey 2015–16, Government of Odisha (GoO), 2016.

⁸ Calculated using National Sample Survey (NSS) 68th round (2011–12) data.

gender disparity; the GER for males is 24.5 percent while that for females is only 22.7 percent. There are also differences in the quality of institutions and enrollments between rural and urban areas and between developed states and less developed ones. There are a series of governance challenges beyond the limited autonomy for colleges. The affiliation system⁹ has reduced the relationship between affiliating universities and affiliated colleges to a minimalistic administrative one.

10. **To address these issues, the GoI launched a HE scheme, *Rashtriya Uchhatar Shiksha Abhiyan (RUSA)*, in 2014, to improve the quality of state universities and government colleges across India.** In the first two years of implementation, more than 95 percent of the RUSA funding has gone to infrastructure funding. In Odisha, RUSA expenditure last year was US\$26.13 million (including state share) for infrastructure development.

11. **The HE system in Odisha faces several challenges.** First, the GER at 17.5 percent is low compared to the national average (23.6 percent), and there are major inequalities in access to HE in Odisha across gender and minority groups. The majority of students (591,000) are enrolled in the approximately 800 degree-granting colleges (these numbers do not include technical education), and the remaining 39,000 students are enrolled in 12 conventional state universities. Of the college students in Odisha, 43 percent are attending government-aided and block grant colleges, and 20 percent of the students are enrolled in private unaided colleges. The GER was 17.8 percent for female students, 14.7 percent for SC students, and 9.4 percent for ST students in Odisha in 2014–15 compared to national ratios of 23.5 percent, 19.9 percent, and 14.2 percent, respectively. The high incidence of poverty among SCs and STs combined with the outdated HE curricula with poor market relevance and, consequently, low private returns to HE are important factors behind low enrollment rates for these groups. It is important to note that between the academic years 2014–15 and 2016–17, there was a 60 percent increase in the number of seats at colleges in the tribal-dense districts. All of these seats were immediately occupied by students, and it can be concluded that there does not seem to be a demand constraint at the colleges in the tribal-dense districts. In the urban districts in coastal Odisha, only 4 percent of the students are ST students, which illustrated that relatively few ST students are moving to the urban districts to pursue a college degree.

12. **Second, the HE system is highly centralized and inefficient.** The decision-making processes on administrative and financial matters are highly centralized in the GoO's Higher Education Department (HED), and most of the academic matters for the affiliated colleges are centrally managed by the affiliating universities. For instance, only 7 percent of the total expenditures on HE in the state of Odisha are made directly by the Higher Education Institutions (HEIs) according to their own priorities, while 93 percent of the expenditures, which comprise mostly salaries and a small proportion on infrastructure development, are made directly by the HED. The similar expenditures at the national level are 43 percent and 57 percent, respectively. Affiliating universities are burdened with administrative responsibilities for their affiliated colleges (for example, Utkal University has more than 300 affiliated colleges), which makes it difficult for them to attend to the varied needs of the individual colleges. There are thus few

⁹ Colleges in India are affiliated to universities, which are responsible for curricula and examinations in their affiliated colleges. Affiliations are conditional upon colleges meeting criteria (usually related to infrastructure and faculty) laid down by the affiliating universities.

interactions between the colleges and the university except that the affiliating universities provide most of the curriculum, conduct examination, and declare results.

13. **Third, there are growing concerns about the quality of HE in Odisha.** Only 126 of the approximately 800 affiliated colleges in Odisha have National Assessment and Accreditation Council (NAAC) accreditation or have completed the self-assessment report in applying for NAAC accreditation with only six colleges having ‘Grade A’ status. One of the factors for insufficient quality is the shortage of qualified teaching staff at HEIs. In March 2014, the Comptroller and Auditor General (CAG) Report noted that 42 percent of the teaching posts in government colleges, 35 percent in universities, and 15 percent in government-aided colleges were vacant. Few teaching staff receive updated training in their disciplines and pedagogical training. Existing training facilities also remain inadequate and underdeveloped for the large pool of teachers in HEIs. In addition, lack of relevance of HE and highly skilled jobs is hindering the employability of college and university graduates.

14. **Lastly, there are inadequate resources for HE in Odisha.** Odisha’s per capita expenditure on HE for population ages between 18 and 23 years is INR 2,700 (approximately US\$40.3), compared to the national average of INR 3,865 (approximately US\$57.7). Odisha spends about 0.5 percent of its GSDP on HE, which is grossly inadequate to support the expanding HE system in the state.

C. Relationship to the Country Partnership Strategy and Rationale for Use of Instrument

15. **The proposed operation is closely aligned to and supports the Country Partnership Strategy (CPS) for 2013–17 (Report No. 76176), specifically, in the engagement areas related to integration and inclusion.** Both engagement areas foresee an expansion of quality HE opportunities for graduates who will be more readily employable in the labor market, given that continued economic growth for India will require more skilled workers. The operation will place special focus on improving equitable access to and quality of HE with integration of appropriate skills development for students from STs and those from other disadvantaged communities in some of the most tribal districts. Further, it supports the CPS of working in one of the LIS.

16. **The World Bank’s value addition will come from its global knowledge and track record in supporting key HE reforms combined with its familiarity with the Indian HE system through almost 15 years of working on technical education through the Technical Education Quality Improvement Project (TEQIP) as well as the Madhya Pradesh Higher Education Project and cross-learning from other HE projects in India in addition to its global technical and operational expertise in HE.** A World Bank-supported HE project in Madhya Pradesh, another of the LIS with high ST population, is currently under implementation. There are significant opportunities for learning from that project, and the World Bank has already facilitated a study tour of HE officials from Odisha to Madhya Pradesh. The World Bank has been engaged with the HE sector in Odisha for two years and carried out analytical work and had several stakeholder workshops to discuss HE reforms. The World Bank’s support of TEQIP II also provides lessons in the complexity of building institutional autonomy, development of

appropriate capacity-building structures, and the use of incentives to drive performance and behavioral change at the tertiary level.

17. **In 2014–15, the World Bank carried out technical assistance (TA) for the HED under the Odisha Non-Lending Technical Assistance.** The capacity-building activities resulted in two reports - ‘Governance for Quality in Higher Education in Odisha’ and ‘Financial Analysis and Performance-based Funding of Higher Education Institutions in Odisha’ - and several stakeholder workshops. The two reports concluded that there are systemic challenges in HE for which adequate responses are needed in the form of expanding the HE system in a sustainable way, eschewing ad hoc short-term solutions; taking on board complex issues of quality and relevance; addressing inequalities of access and outcomes; and putting into practice more decentralized and flexible government structures and management practices.

18. **The proposed Odisha Higher Education Program for Excellence and Equity (OHEPEE) will be the first support for the HE sector by the World Bank in Odisha and will seek to support an overall government HE program through a Results-based Financing (RBF) modality.**

19. **Rationale for the use of Program for Results (PforR).** The PforR instrument is considered as an appropriate lending instrument to support the Odisha Higher Education Program (OHEP) for the following reasons: (a) a PforR will enable the HE sector to use a single programmatic development framework, thereby enabling the government to focus more on achieving the results of the Program; (b) it will enable the government to focus on the outcomes expected from these priority interventions and the processes and actions required to achieve these outcomes; (c) it will help strengthen institutions through better systems, incentives, and capacity building; and (d) it will enhance the partnership between the government and the World Bank through the use of the government’s own systems.

20. **Rationale for the use of a TA component following Investment Project Financing (IPF) policies.** The outcome orientation of the Program will require considerable capacity building of the agencies and systems implementing the Program. The main objective of the proposed component using an IPF instrument will be to strengthen the system and institutional capacities of the HED as well as universities and colleges for program implementation. The IPF component will assist the implementation of the program through coordination, TA, research, capacity building, stakeholder consultations, monitoring and evaluation (M&E), and communication.

II. PROGRAM DESCRIPTION

A. Government Program

21. **The GoO will implement the OHEP 2018–22.** The OHEP is built on the recommendations made by the Higher Education Task Force¹⁰ formed in 2010 as well as on a draft report on Odisha Higher Education Policy in 2016 (not yet finalized) from the newly

¹⁰ HED, Odisha (2010): “Report of the Task Force on Higher Education” (see <http://HEDodisha.gov.in/HED/pdf/FinalTaskforceReport.pdf>).

established State Higher Education Council (SHEC) to strengthen the HE system in Odisha. Several reforms and initiatives being implemented at present are inspired by the task force's recommendations from 2010 such as a Choice-based Credit System (CBCS), filling up vacant faculty positions, and the establishment of the SHEC. The OHEP has two strategic focus areas: (a) improving the quality of and students' equitable access to HE and (b) strengthening governance and management. The OHEP includes governance reforms, strengthening of the quality assurance of teaching and learning, promotion of e-learning, integrating of skill development in general HE, and strengthening of equity and inclusiveness.

22. **The HED is the main implementing agency for the OHEP, and it manages the administrative and financial matters concerning HE in Odisha.** It provides grants-in-aids to universities and colleges, which are primarily composed of salaries and the operating costs of institutions. The HED is also the state-level implementing agency for national initiatives including RUSA. The priority in the implementation of RUSA has so far been given to infrastructure development and equipment upgrading of state universities and government colleges and establishment of the SHEC at the State level. In Odisha, ten state universities and 127 colleges have received US\$11 million and US\$22 million, respectively, from GoI for infrastructure improvement and provision of equipment. None of the RUSA resources so far have been earmarked for the interventions to improve quality, such as through development of faculty and leadership and upgrading of curriculum, as well as to improve governance and management of the HE sector. To address these gaps, the OHEP has introduced a number of interventions and reforms.

B. Program Development Objective/s (PDO) and Key Results

23. The Program Development Objective (PDO) is to improve the quality of and students' equitable access to selected institutions and enhance governance of the higher education system in Odisha.

24. The key performance indicators (KPIs) and disbursement-linked indicators (DLIs) are presented in annex 3. The KPIs are

- Improved quality of selected government and government-aided institutions (increased percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation);
- Increased on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students); and
- Revised regulations on the creation/composition of Governing Bodies (GBs) and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations.

C. PforR Operation Scope

25. **The proposed World Bank Operation, the OHEPEE, will support the GoO in strengthening state-level initiatives of the OHEP through two components: (a) OHEPEE PforR Program (US\$165 million) and (b) a TA component (US\$5 million).** Disbursements for the PforR will be made against the achievement of specific DLIs that would contribute to the

achievement of the overall objectives of the Program. The TA portion will use an IPF instrument. The TA will support the implementation of the PforR through capacity building, stakeholder consultations, TA, and research. The flow of funds under the TA will be provided against specific investments.

26. **The boundary of the OHEPEE Program (FY18–FY22) focuses on initiatives that strengthen the quality and governance of HE in Odisha.** The OHEPEE has two results areas: (a) improving quality of and students’ equitable access to selected institutions and (b) enhancing governance of the higher education system. Under Results Area 1, the Program includes the following activities that directly contribute to the results areas of the Program (a) IDGs to universities and colleges that aim to incentivize institutes to undertake quality-focused initiatives and (b) state level initiatives for quality improvement. Under Results Area 2, the Program will cover initiatives aimed at the improvement of governance of the system: (a) improvement of governance in colleges and (b) improvement of financial and procurement management and accounting in colleges. RUSA focuses primarily on improving the infrastructure including equipment to state universities and colleges and it is not included in the Program. Scholarship schemes are also outside the scope of the Program because these are complex with multiple agencies and departments involved in funding and implementation. The boundaries of the Program are represented in Figure 1. The main beneficiaries of the Operation are estimated to be about 630,000 HE students and about 21,000 faculty staff and 11,000 administrative staff at the colleges and universities.

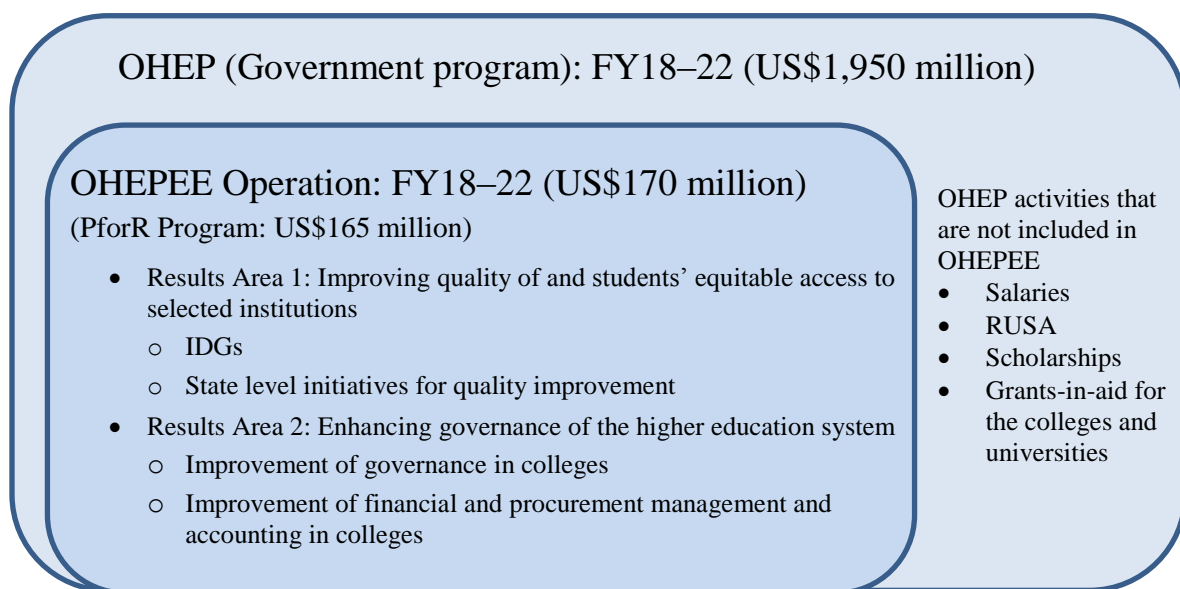


Figure 1. Program Boundary

27. **Program costs and financing.** The OHEP spreads over 5 years from 2018 to 2022 and stands at US\$1.950 billion. The OHEPEE is valued at US\$170 million and it will support OHEP, except those funded by RUSA, student financial support, grants-in-aid for the colleges and universities, and teachers’ salaries. An IBRD financing of US\$119 million will be used to leverage the Operation (Table 1).

Table 1. Operation Cost and Financing (US\$, millions)

Financing	Cost
Government program cost (OHEP) FY18–FY27	1,950
Total Operation cost (OHEPEE) FY18–FY22	170
Total Program cost FY18-FY 22	165
IPF component	5
Counterpart funding	51
IBRD	119
Financing gap	0

28. The OHEPEE has two results areas: (a) improving quality of and students’ equitable access to selected institutions and (b) enhancing governance of the higher education system.

Results Area 1: Improving quality of and students’ equitable access to selected institutions (US\$160 million)

29. To improve quality of and students’ equitable access to higher education institutions, the Program will implement two activities under this results area:(a) support HEIs through IDGs and (b) state level initiatives for quality improvement. The majority of the activities under this results area will be implemented at the institutional level (that is, colleges and universities).

Activity 1.1: Institutional Development Plan (IDP) Grants (Performance-based Financing)

30. **IDG for colleges.** Government, government-aided, and block grant colleges that either have obtained NAAC accreditation or have completed their NAAC self-assessment report as well as state universities are eligible to compete for IDGs based on their IDP. Each of the IDPs will be evaluated by an Evaluation Committee with eminent academics from inside and outside the state of Odisha, and they will select the 70 best college IDPs in the first round and approximately another 70 college IDPs in the second round of selection to be done after 12 to 18 months. The IDPs aim to increase the capacity of HEIs in Odisha to deliver quality education matched to the needs of their students in a manner that will be sustainable after the completion of the project.

31. **IDG for universities.** The eligible state universities will be classified as follows: (a) affiliating universities and (b) non-affiliating universities. IDPs of affiliating universities will have focus on strengthening the links with their affiliated colleges. IDG for universities will have two components: (a) Core Component; and (b) Centers of Excellence (CoE). The Core Component will be mandatory for the IDG proposal (a CoE will be an optional part of the IDP). Eligible activities for the university IDG will include efforts on assisting affiliated colleges in achieving autonomous status, curriculum delivery innovations, teacher training, improving of the examination system, establishing of Resource Support Centre for Affiliated Colleges in tribal-dominated districts, modernization of university, infrastructure support and so on. The evaluation and selection of the IDPs and CoEs will be done based on the guidelines provided in the IDGs Operations Manual for Universities.

The remaining approximately 660 colleges in Odisha that will not receive IDGs will be able to benefit directly from a faculty development program (FDP) and the activities to be implemented by the affiliating universities financed by their IDGs to improve their support to their affiliated colleges.

Activity 1.2: State level initiatives for quality improvement

32. The HED will take up certain initiatives at the state level to improve the quality of teaching and learning in the colleges. These initiatives will include short term trainings for faculty to improve their skills and knowledge; online student feedback system on faculty performance; and skills development initiatives etc.

Results Area 2: Enhancing governance of the higher education system (US\$5 million)

33. The following system-wide activities will be undertaken under this results area: (a) improvement of governance in colleges and (b) improvement of financial and procurement management and accounting in all government and government-aided colleges. Major initiatives will be undertaken at the state level by the HED under this results area to enhance the governance of the HE system in Odisha.

Activity 2.1: Improvement of governance in colleges

34. **Strengthening GBs in all government-aided and block grant colleges.** The HED will develop and issue a regulation for the composition of the GBs and their functioning for all government-aided non-autonomous colleges. Mechanisms will also be developed to monitor the implementation of the guidelines that will be developed for the GBs to meet at least four times in a year and for the minutes of their meetings to be made available on the websites of the colleges.

35. **Governance benchmarking exercise for selected colleges.** Using a standardized benchmarking tool (currently being used in seven countries) adapted to the specific contextual characteristics of HE in Odisha to score performance, selected institutions will have a comprehensive assessment of their governance practices to allow monitoring of their progress and to compare themselves with other institutions.

36. **A management information system (MIS) for all HEIs for the program will be developed by the HED for effective program management.** It will monitor the performance indicators and annual disbursement to the colleges and streamline the Student Admission Management System (SAMS) database with the All India Survey of Higher Education (AISHE).

37. **Development of an online system to publish the guidelines and results of the licensing/recognition process for all new colleges and the process for expansion of existing colleges.** The Program will support the development of the online system to publish the guidelines and results of this process with an aim to improve transparency and to maintain the objectivity of the process.

Activity 2.2: Improvement of financial and procurement management and accounting in all government and government-aided colleges

38. Under the Program, the HED will develop a strategy for the effective implementation of an online financial management (FM) system to be used by all the government-aided colleges. Procurement management will be strengthened at the colleges through capacity-building efforts to adopt and use the Procurement Manual for efficient and transparent issue of contracts and their management.

D. Disbursement-linked Indicators and Verification Protocols

39. A subset of the OHEPEE outcomes and intermediate outcomes from the two results areas are chosen as the DLIs as presented in Table 1. There are five DLIs enabling the monitoring of performance in each of the two results areas.

Table 2. Results Areas and DLIs

Results Area	DLIs
Results Area 1: Improving quality of and students' equitable access to selected institutions	<ul style="list-style-type: none"> • DLI 1: Improved quality of selected government and government-aided institutions (increased percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation) • DLI 2: Increased on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students) • DLI 3: Annual performance milestones met by the HED and selected institutions
Results Area 2: Enhancing governance of the higher education system	<ul style="list-style-type: none"> • DLI 4: Revised regulations on the creation/composition of GBs and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations • DLI 5: Improved fiduciary management in selected institutions <ul style="list-style-type: none"> ○ DLI 5(i): Percentage of selected aided institutions that completed data entry using online FM system ○ DLI 5(ii): Enhanced procurement management

40. The DLIs have been selected based on their capacity to clearly reflect significant progress in implementing the Program and to lead to unambiguous decisions regarding disbursements. The achievement of the DLIs will be verified and recommended to the World Bank by independent agencies, with relevant technical expertise, before the disbursement of funds. The verification protocols for the DLIs are spelled out in more detail in annex 3.

E. Capacity Building and Institutional Strengthening (IPF/TA Component)

41. The TA component under the IPF (US\$5 million) will support the implementation of the PforR operation through capacity building, stakeholder consultations, TA, and research. The key activities identified for this component are (a) capacity building for the project management unit (PMU) on areas of FM and procurement with particular focus on building clusters of capacity in remote districts; (b) development of partnerships with national capacity building institutions approved by MHRD and /or international HE institutions for faculty and leadership

development at all the colleges and universities in Odisha; (c) international experts for the governance and management benchmarking exercise; (d) study on the learning outcomes, creativity, and critical thinking skills among students; and (e) the independent verification of the DLIs. A Procurement Plan for the first 18 months and terms of reference (TOR) for the activities to be implemented under the TA (IPF) component will be developed by the PMU.

III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

42. The main implementing agency for the proposed Program will be the PMU housed in the HED to manage and oversee implementation of the Program as well as the state's RUSA program, which also serves as the executing arm of the SHEC. The Program Director (PD) of the PMU will be responsible for both the RUSA program in the state and the OHEPEE supported by the World Bank. A team of professionals either on deputation or hired from the market as consultants with expertise in M&E, faculty development, MIS, procurement, and FM staffing the PMU will support the PD in implementation and M&E of the Program activities.

43. The PMU will be responsible for administrative and financial oversight of the Program, coordination between the HED and institutions, monitoring of the implementation of the IDGs, support for the HED in the introduction and institutionalization of systemic reforms to improve management and governance of the HE sector, coordination of the various capacity-building activities under the TA component, and ensuring of complementarity (and not duplication) of the Program activities with RUSA with separate tracking of results for both.

44. A Steering Committee for the OHEPEE chaired by the Development Commissioner-cum-Additional Chief Secretary will be established and include Principal Secretaries, Higher Education and Finance Departments; Vice Chancellor, Utkal University; Engineer-in-Chief-cum-Secretary, Works Department; Commissioner-cum Secretaries, ST and SC Development, School and Mass Education, and Rural Development Departments; an academic from the HE sector; and the PD of the PMU who will also serve as the Member-Convener to the Steering Committee. In addition, there will be special invitees to the Steering Committee. The Steering Committee will be responsible for approving the annual work plan and budget of OHEPEE, endorsing HEIs selected for support under the project, reviewing project implementation progress and achievement of the PDO, and resolving implementation bottlenecks.

45. Two Operations Manuals have been prepared for the preparation and selection of the IDPs of colleges and universities. This will be supplemented by a Project Implementation Manual (PIM) for the Program.

46. The arrangements, policies, and procedures to guide project implementation on a day-to-day basis will be included in the PIM, which will be a living document. The PMU will prepare the PIM that will set out a description of the Program, the implementation arrangements and plan, the Results Framework and monitoring arrangements, and planned technical support and capacity-building activities. It will include a timeline of key actions under the two results areas, implementation responsibilities among the various agencies, budgets, and expected results. The

Implementation Plan will be periodically updated during the implementation of the Program, with the agreement of the World Bank.

B. Results Monitoring and Evaluation

47. The PMU will be responsible for carrying out Program M&E activities, including periodic sector and project progress reviews, preparing and disseminating project progress reports, reporting on DLI achievements, other studies and evaluations, and independent verification of DLIs. IDG-supported HEIs will report on agreed objectives and targets per IDPs, and the PMU will consolidate the M&E information according to the Results Framework from all implementing agencies.

48. Program preparation has included a comprehensive evaluation of both national and state-level data and information systems. The Program will support improved M&E through a number of measures: (a) TA including the development of an MIS for the HED; (b) better planning, including identifying key performance targets at the institution level; (c) better data and information systems at the institutional level through the IDGs; (d) biannual monitoring of progress against IDP targets and performance-linked funding; and (e) independent verification of DLI achievements.

49. The Program will also support periodic faculty and student satisfaction surveys including a baseline survey within five months of project approval. It will support the strengthening of linkages between the HEIs and employers, including building the HEIs' capacity for tracking employment and wages through tracer studies. Finally, the Program will support special studies to evaluate the effectiveness of new incentive schemes and government support, introduced under the Program, to improve equitable access, employability of graduates, and excellence in HEIs.

C. Disbursement Arrangements

50. The OHEPEE will use DLIs for disbursement of the PforR component. Annex 3 provides the agreed list of DLIs and the Disbursement-linked Results (DLRs), the amount allotted and achievement deadlines for all DLRs, and the proposed annual financing allocations across DLIs and DLRs. There are five DLIs and a total of 31 DLRs spread across five years. The World Bank can provide up to US\$4 million for one prior-result DLR, expected to be achieved before the Loan Agreement is signed. The prior-result DLR is under DLI 3..

51. The disbursement will be contingent upon the government furnishing evidence satisfactory to the World Bank that it has achieved the respective DLRs and these are verified by the Independent Verification Agency (IVA) or by the World Bank as specified in the verification protocol. Application for withdrawal from the World Bank's financing account of amounts allocated to individual DLRs will be sent to the World Bank any time after the World Bank has notified the GoO in writing that it has accepted evidence of achievement of the DLRs. The withdrawal amount against the DLRs achieved will not exceed the amount of the financing confirmed by the World Bank for the specific DLRs.

52. Details of the agreed disbursement rules for each DLR are provided in annex 3. Some DLRs are scalable, with funds being disbursed in proportion to achievement of the DLR. Where DLRs are not achieved in any particular year, the allocated amount may be carried over to the subsequent year for the majority of DLRs. Similarly, if the achievement outperforms the targets, the corresponding World Bank financing against the given DLR may be disbursed before the deadline of each DLR.

53. For the TA component, World Bank funds will be used to pay for the specific expenditures such as consultants, non-consulting services, TA, training and workshops, goods, and incremental operating costs of the PMU and HED following the World Bank's fiduciary rules and guidelines. Disbursement under the TA component will be made primarily as reimbursements on the basis of interim unaudited financial reports (IUFs) to be submitted on an annual basis.

IV. ASSESSMENT SUMMARY

A. Technical (including Program Economic Evaluation)

Program Strategic Relevance

54. The proposed Program is strategically relevant as it supports key aspects of Odisha's vision for the HE sector articulated in its State Higher Education Plan, which seeks to "couple access with quality and inclusion." High poverty levels are a key challenge faced by Odisha's economy, with 32 percent of the population below the poverty line. The Program's focus on equitable access to higher education can play a significant role in reducing poverty, especially among SCs and STs, groups for whom the incidence of poverty is particularly high. Despite the high private returns to HE, public intervention through the Program is required to address the considerable inequality in access to HE. The Program's focus on quality addresses another major gap in the general HE system, with accreditation outcomes, among other indicators, revealing significant quality deficits.

Technical Soundness

55. The Program addresses the HE sector as a whole, providing targeted grants to selected colleges and universities while also improving the HE system by developing the affiliating universities and through interventions focusing on improved system governance and management. The development of IDPs by eligible colleges and universities will be the first strategic planning exercise for these institutions. The process of IDP development is backed by capacity building and through significant involvement of the affiliating universities that have led this process. The focus on affiliating universities will lead to quality improvements across all 800 affiliated colleges in Odisha and can serve as a cost-effective means to achieve scale in a large and diverse technical education system. The Program also draws heavily on lessons from other HE projects in India, including focusing on institutional governance, teacher training, and skill development.

Public Expenditure Program

56. The PforR Program is valued at US\$165 million and includes all activities under the OHEP from 2018 to 2022 excluding those financed by RUSA, scholarships, teachers' salaries and grants-in-aid for the colleges and universities. The Program expenditure covers infrastructure and capital assets and quality interventions. The IDGs to universities and colleges represent a significant qualitative shift in the expenditure patterns of selected institutions. It is expected that a maximum of 60 percent of the IDGs will be utilized for civil works and equipment (maximum of 40 percent for universities) with the remainder used for incremental recurring costs occurring out of development activities. This is in stark contrast to current expenditure patterns where nearly 90 percent of expenditure is on faculty and staff salaries.

57. The expected Program budget allocations are clearly aligned with Government priorities and the expenditure framework composition is derived from the approved HED budget. Budget execution appears to be free of major problems and the future outlook for the state economy and public finances leads to the anticipation that the Program will be sustainable.

Monitoring and Evaluation

58. There are currently several mechanisms for the M&E of HE in Odisha, but the quality of data is poor. The Program will improve M&E through a robust Results Framework and DLIs, increasing compliance and data quality using existing systems, building the HED capacity, and conducting a series of evaluation studies.

Program Economic Evaluation

59. The cost-benefit analysis yields that the Program's economic internal rate of return is 14 percent above the traditionally used discount rates of 10–12 percent for World Bank funded projects/programs.

B. Fiduciary

60. Fiduciary management for PforR operations is part of an integrated approach that covers the technical, FM, procurement, disbursement, and risks aspects. The Fiduciary System Assessment (FSA) was carried out, in line with the World Bank policy and procedure for PforR financing, and covered the HED, Rural Development Department (RDD), Odisha Police and Housing Welfare Corporation (OPHW Corporation) at the state level and selected HEIs in the state. The HEIs were selected in a manner that covered 10 colleges (3 government funded, 5 government aided, and 2 block grant) and 2 universities across 5 districts of Odisha. Complemented by the World Bank's existing knowledge and understanding of the fiduciary systems gained from state and sector operations, this sample may be considered adequate for purposes of the FSA.

61. **Procurement systems.** Most procurements at the HEI level are expected to be of low value, and therefore skill development will focus on ensuring consistency, uniformity, and monitoring of a large number of small-value contracts (expected not to exceed US\$50,000 per contract). Civil works, which is the major procurement for the institutions, is handled by

professional executing agencies having adequate procurement experience. The IFSA identified issues in HEIs with regard to lack of integrated procurement planning, inadequate competition weaknesses in the implementation of selection criteria of suppliers for small value purchasers, weaknesses in contract administration, inadequate disclosure/transparency, lack of a procurement monitoring system and a robust complaint handling mechanism, and absence of independent oversight over procurement processes. Staff availability and capacity at the institutional level is limited. The PMU in the HED, which will handle all procurement-related activities at the state level, will be staffed by competent procurement personnel. GoO has confirmed that actions are being taken to align the state procurement procedures with the provisions of GFR 2017 issued by the GoI along with the corresponding procurement manuals. This arrangement is acceptable to the World Bank.

62. The Program is not expected to require large contracts valued at or above Operational Procurement Review Committee (OPRC) thresholds (US\$50 million for works, US\$30 million for goods, US\$20 million for non-consulting services, and US\$15 million for consultant services). The TA component will complement the Program. (For details on procurement arrangements under the TA component, refer to annex 5.)

63. **FM systems.** The FM systems at all levels are operational; the HED operates within the state public FM systems, whereas colleges and universities, established under various state laws, are required to maintain separate books of accounts and prepare annual financial statements as laid down in their bylaws. At the state level, an established budgetary framework exists that ensures that adequate resources are allocated to the HED and HEIs. While some concerns have been noted in the findings of the assessment over the timeliness of fund releases, there appears to be sufficient predictability in the availability of resources for the implementation of the Program. Basic books of accounts are maintained at all levels, though significant internal control weaknesses are noted from field observations (also confirmed in various state- and program-level CAG audit reports). Findings from the FSA indicate weaknesses in the accounting and financial reporting systems at the HEI level, attributed largely to absence of laid-down standard rules/procedures or manuals covering FM specific to degree colleges and universities. There is a steady increase in volume of work due to an increase in student enrollments; separation of degree colleges from junior colleges have not taken place; and existing shortages in FM staff strength, inadequate training in FM, and lack of computerization are severely stretching the existing FM capacity. These factors considerably increase the FM risk of the Program for all levels of stakeholders including the beneficiaries.

64. Key mitigation measures have been built into the Program design to ensure that due diligence as well as system strengthening concerns are adequately addressed: (a) submission of annual audit reports and utilization of Program funds will be conditions for access to IDG funds; (b) separate DLIs under the PforR component will track, monitor, and disburse, in Years 1, 2, and 3 of the Program, Program funds for the results in the area of the online FM system rollout; and (c) TA will be provided under the IPF component of the Program to support the rollout of the online FM system.

65. **Governance and accountability systems.** The existing vigilance and anticorruption mechanisms at the Program level include the *Lokayukta* and Vigilance Department/s at the state

level that enforce the Prevention of Corruption Act, 1988; financial and performance audits by the CAG of India; the Right to Information (RTI) Act, 2005; and various departmental-level vigilance and grievance redress systems. In line with its commitment to improve grievance redress, transparency, accountability, and fraud and corruption (F&C) related issues, the GoO has established an online Odisha Grievance Redressal Portal with the URL address of <http://cmgcodisha.gov.in/>, nicknamed e-Abhiyoga, which is monitored at the highest level at the Chief Minister's Office. Communities and individuals who believe that they are adversely affected by the Program may submit complaints to existing state-level grievance redress mechanisms (GRMs) or to the World Bank's Grievance Redress Service (GRS).

66. **World Bank anticorruption guidelines.** Following the precedence set by previous PforR operations in India, for this Program, the guidelines from the World Bank's 'Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results financing' dated February 1, 2012, and revised on July 10, 2015, which covers the borrower's obligations under the anticorruption guidelines, will apply. Furthermore, the Bank's "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011, and as of July 1, 2016 will apply to the IPF component of the operation.

C. Environmental and Social Effects

67. **An Environmental and Social Systems Assessment (ESSA)** was undertaken to gauge the adequacy of systems at the state, university, and college levels and understand the environmental and social impacts, risks, benefits, and opportunities associated with the proposed operation. The assessments were carried out through a review of relevant government policies, legislations, codes, institutional roles, program guidelines/procedures, and assessment, including consultation in the field and an analysis of the extent to which these are consistent with the World Bank's policy and directive on Program-for-Results Financing. Based on this, gaps were identified and actions formulated to enhance opportunities/benefits and manage risks.

Environment

68. **ESA key findings.** While the existing legal and regulatory framework is largely adequate in its coverage of environmental aspects, awareness is low, resulting in inconsistent and inadequate application of existing norms/codes. Institutional capacity for environment, health and safety (EHS) management in the HED, HEIs and construction agencies is limited due to lack of a designated position or role, inadequate sensitization, and inconsistent inclusion of relevant EHS aspects in campus plans, building designs and in the bid documents. Monitoring of EHS aspects in HEIs is also fairly limited. The environmental risks, therefore primarily stem from inconsistent adherence to regulatory requirements; lack of sensitization and staff capacity in construction agencies, HEIs and HED; inadequate monitoring arrangements; and in some cases on account of proximity to forest areas. The impacts resulting from poor design; construction; and, more importantly, inadequate maintenance of buildings/infrastructure pose a risk to achievement of the intended project/program objectives. The key issues requiring attention include design of buildings/physical infrastructure, sanitation facilities, waste management (including e-waste), drainage, water supply, universal access, fire safety, electrical safety,

laboratory management (including safety practices related to handling of chemicals, residues, spills) and disaster preparedness (both structural and non-structural).

69. **Risk management.** To manage the said issues and risks, the actions proposed to be included in the Program Action Plan (PAP) are: (a) inclusion of the Environment Audit and Management Plan (EAMP) as part of the MoUs with the universities/colleges receiving the IDG and, as part of the IDPs of universities/colleges for revamping existing and/or creating new infrastructure; (b) integration of EHS aspects in bidding documents; (c) capacity building of relevant staff of universities, colleges, the HED, and construction agencies on environment management; and (d) strengthening of the institutional and monitoring systems of the HED and HEIs by appointing/designating an Environment Officer and constitution of an Environment Management Committee within HEIs to facilitate implementation of environment management activities. Details are in Annex 6.

70. Activities with significant adverse environment impacts will be excluded from the Program. These include: (a) construction within all protected/forest areas (including National Parks, Wildlife Sanctuaries, Elephant/Wildlife Corridors, Tiger Reserves, Elephant Reserves, Biosphere Reserves), and, within Eco-Sensitive Zones for which final or draft notifications have been published by the MoEFCC, GoI; (b) construction or demolition within 300 meter radius of protected monuments identified by the Archaeological Survey of India or Odisha State Archaeology Department; (c) construction of new buildings of more than 20,000 sq.mt. area; (d) construction, renovation or dismantling works involving ‘asbestos containing materials’ and; (e) procurement of equipment containing radioactive material or hazardous material¹¹.

71. **Climate and disaster risk screening.** A screening exercise was undertaken using the exposure-sensitivity-adaptive capacity framework. The project has moderate exposure to climate hazards (flooding, cyclones/strong winds, tsunami, sea level rise and extreme temperature) in view of its location in the coastal state of Odisha and its support to physical infrastructure. Overall, the implementation of recommendations from the ESSA can contribute to reduction of the said risks.

Social

72. **ESSA key findings.** Assessment of the legal and regulatory framework for the social aspects pertaining to HE points out that both national and state governments have clear focus on inclusion. Over the last two decades, both central and state governments have placed significant emphasis on excellence along with expansion and equity in HE. The assessment of the colleges and universities indicates that adequate institutional arrangements exist at the state level for implementing the OHEPEE. There exists a clear mandate for ensuring social inclusiveness in areas directly applicable to the OHEPEE. Initiatives such as an increase in reservation from 8 percent to 16.25 percent and 12 percent to 22.50 percent for SC and ST students, respectively; setting up of model colleges in districts with high share of SC and ST population under RUSA; and self-defense courses to girl students have led to a consistent rise in participation of students belonging to disadvantaged communities.

¹¹ Hazardous material refers to chemicals listed in the Public Liability Insurance Act, 1991.

73. The ESSA report distinguishes between access and quality-related barriers that hinder equitable participation of students from disadvantaged groups. Some of the concerns that prevent students from participating include (a) implicit and explicit information-related barriers (knowledge about the application procedure, courses offered, and future possibilities); (b) socioeconomic and sociocultural issues (expenses incurred on food by day scholars and hostel students, cost of travel, communication gaps between students and teachers, language issues, parental attitude toward safety concerns, especially for girl students, clashing of exams with the harvest season, and so on); (c) perceived lack of value and relevance in HE; and (d) information asymmetry related to employment opportunities. The larger social context with respect to migration and security-related risks also is seen to have an impact on the enrollment and retention of tribal boys and girls in HEIs of the state (more details are in annex 6).

74. **Risk management.** To mitigate the mentioned issues and associated residual gaps/risks as identified in the ESSA report, the actions proposed include introduction of proctorial system to cater to weak students and outreach programs and strengthening of the existing GRM mechanisms at the HEI level. It is suggested that HEIs will select two or three action steps to be included in their IDPs that will positively impact enrolment, retention and on-time graduation of SC, ST and female students.

75. **Land acquisition and Resettlement & Rehabilitation:** Activities related to acquisition of land either from title holders or non-title holders are excluded under the program.

Gender

76. The OHEP recognizes the existing gender differentials that emerge as a result of the wider social context and aims to improve equitable access to disadvantaged groups, particularly girls from marginalized groups since they face an intersectionality of barriers. For instance, the college enrollment for ST girls in Odisha stands at 8.9 percent, which is lower than the national average of 12.9 percent as well as lower than that of average enrolment of ST boys in Odisha, which stands at 10.7 percent. As identified by the ESSA report, some of the gender gap issues faced by students, especially in the tribal districts, include mobility and accommodation, lack of knowledge regarding specific trade training, improper sanitation facilities, and parental attitude toward HE of female students (more details in Annex 6).

77. The HED has taken several initiatives such as self-defense courses for girls, scholarships, and counselling to increase the enrollment and retention of both girls and boys. The DLIs related to increase in enrollment and on-time graduation will collect information disaggregated by gender. The HED will monitor progress achieved on gender indicators through the annual benchmark reports submitted by HEIs.

Citizen Engagement

78. The Program lays considerable emphasis on proactive multi-stakeholder engagement through an informed consultative process involving relevant stakeholders (students [girls and boys], faculty, DLCs, and administration staff. Institutions are required to execute multi-stakeholder consultations as a part of the IDP preparation process. The purpose of the

consultative approach is to capture diverse experiences, assess lessons learned through implementation of existing government policies at the state level, and outline methods and entry points to provide a more systematic and results-focused approach toward beneficiary engagement.

79. **The GRM** at the HED has a fairly robust online portal (<http://cmgcodisha.gov.in/>), and Grievance Redressal Cells and Sexual Harassment Committees exist in universities and most colleges. However, ESSA findings suggest that anonymous complaint boxes were missing in some institutions. Most colleges follow the practice of verbally registering the complaint to authorities. Since the record of complaints received was absent in most of the colleges, it is difficult to comment on the functionality of Grievance Redressal Cells and Sexual Harassment Committees. The HEIs supported under the OHEPEE will strengthen the functioning of their Grievance Redressal Committees.

80. Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance redress mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. 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

D. Risk Assessment

Risk Rating Explanation

81. The overall risk of the proposed operation is rated Substantial. This is largely due to the political and governance risk, weak fiduciary environment, and risks related to technical design of the Program and institutional capacity for implementation of the operation. Based on the ESSA, environment and social risks are rated Moderate. The risk ratings are reflected in the Systematic Operations Risk-Rating Tool (SORT; see annex 7).

82. The substantial political and governance risks primarily stem from the weak system governance and management and weak accountability mechanism currently in place for the affiliated colleges and universities. The operation will mitigate these risks through a number of interventions specifically focusing on the improvement of governance and management of the HE sector. These include (a) strengthening accountability of colleges and universities through the IDP process by linking the disbursement of grants to periodically updated performance targets; (b) governance benchmarking exercise; (c) improvement of function of GBs; and (d) improvement of sector governance with regard to planning, management, and M&E through TA and capacity-building activities.

83. Technical design and institutional capacity to implement the Program are rated Substantial as this is the first support for the HE sector in Odisha by the World Bank and the first operation using the PforR lending instrument in the state. However, the design is technically sound and based on the extensive experience from other World Bank HE programs in India as well as in other countries. In addition, the operation will provide substantial support to strengthen the institutional capacity of the HED and PMU to implement the Program under the TA component to mitigate this risk.

84. The substantial fiduciary risks are mainly related to (a) absence of standard rules/procedures or manuals covering specific FM arrangements for degree colleges and universities; (b) inconsistent adherence to relevant regulations, codes, and guidelines; (c) inadequate numbers of qualified staff on fiduciary management in HE institutions; and (d) inadequate monitoring of fiduciary management aspects by the state. In addition for procurement, there is absence of integrated procurement planning, inadequate competition, weaknesses in the implementation of selection criteria of suppliers for small value purchases, restrictions on registration of vendors/suppliers, weaknesses in contract administration, inadequate standards for disclosure/transparency, lack of a procurement monitoring system and a robust complaint handling mechanism, and absence of independent oversight over procurement processes. All of these factors considerably increase the fiduciary risk of the Program for all levels of stakeholders including the beneficiaries.

85. The operation will mitigate these fiduciary risks through (a) submission of annual audit reports and utilization of Program funds as conditions for access to IDG funds, (b) specific DLIs to track and monitor the online FM system rollout and improved capacity to implement effective procurement, (c) TA to support the online FM system rollout, (d) adoption of the Procurement Manual prepared by the HED, GoO, (e) provision of procurement training to nominated staff of HE institutions, and (f) measures to strengthen vigilance function in the HED.

E. Program Action Plan

86. The PAP (annex 8) was developed based on recommendations of the Technical Assessment, the FSA, the ESSA, and the Risk Assessment. The PAP includes key activities/actions agreed with the government to achieve Program objectives, results, and the DLRs. Development of strong outreach/awareness programs by universities and colleges in their catchment area that cater to the information gaps faced by students at the class 12 level on the application procedure, courses offered, and future employment possibilities and completion of a needs assessment for short-term faculty training programs are critical for achievement of DLRs. In addition, issuance of the executive order by the HED mandating the use of online FM system at all colleges in Odisha and development and recommendation for adoption of model finance rules for colleges will help minimize the Program's fiduciary risks. The implementation of the PAP will be monitored and reviewed during the semiannual Implementation Support Missions.

Annex 1: Detailed Program Description

1. **The GoO will implement the OHEP during FY18–FY22.** The OHEP is built on the recommendations made by the Higher Education Task Force¹² formed in 2010 as well as a draft report on Odisha Higher Education Policy in 2016 from the newly established SHEC to strengthen the HE system in Odisha. Several reforms and initiatives being implemented at present are inspired by the Task Force’s recommendations from 2010 such as a CBCS, filling up of vacant faculty positions, and the establishment of the SHEC. The OHEP also includes governance reforms, strengthening the quality assurance of teaching and learning, promotion of e-learning, integrating skill development in general HE, strengthening equity and inclusiveness, and the activities financed through RUSA and UGC.

2. **The proposed World Bank Operation, the OHEPEE, will support the GoO in implementing the OHEP.** The PDO of the Operation is ‘to improve the quality of and students’ equitable access to selected institutions and enhance governance of the higher education system in Odisha’. The main beneficiaries of the Operation are estimated to be about 630,000 HE students and about 21,000 faculty staff and 11,000 administrative staff at universities and colleges.

3. **The proposed OHEPEE will be the first World Bank-supported Program for the HE sector in Odisha and will support the OHEP through an RBF modality using a PforR instrument.** The proposed operation has two components: (a) OHEPEE PforR Program (US\$165million) and (b) a TA component (US\$5 million). Disbursements for the PforR will be made against the achievement of specific DLIs that would contribute to the achievement of the overall objectives of the Program. The TA portion will use an IPF instrument. The TA will support the implementation of the PforR through capacity building, stakeholder consultations, TA, and research. The flow of funds under the TA will be provided against specific investments.

4. **The Program and its boundaries.** The proposed OHEPEE operation supports a slice of the OHEP and the boundaries are presented in Figure 1. The diagrammatic representation of the World Bank’s OHEPEE operation reflects the overlap with the GoO’s OHEP. The OHEP spreads over ten years from 2018 to 2022 and stands at US\$1.950 billion, while the OHEPEE of US\$170 million will support all OHEP activities from 2018 to 2022, except salaries of teachers and staff, those funded by RUSA and student financial support. An IBRD financing of US\$119 million will be used to leverage the Operation.

5. **Results Areas.** To achieve the PDO, the Program component of the OHEPEE will support two strategic Results Areas:

- Improving quality of and students’ equitable access to selected institutions
- Enhancing governance of the higher education system

¹² HED. 2010. “Report of the Task Force on Higher Education.” Odisha. <http://HEDodisha.gov.in/HED/pdf/FinalTaskforceReport.pdf>.

Figure 1.1. Results-Chain (Theory of Change) for the Odisha Higher Education Program for Excellence and Equity (OHEPEE)

Challenges	Operation	Operation Interventions	Intermediate Outcomes	PDO Outcomes	Long-Term Outcomes
<ul style="list-style-type: none"> Limited and inequality in access to higher education Insufficient quality Weak governance Weak capacity 	<p><u>PforR</u></p> <p>Results Area 1</p>	<p>Institutional Development Grants</p> <ul style="list-style-type: none"> Remedial and induction classes for ST and SC and female students Short-term faculty training Hiring of contractual teachers Support to start new degree programs and streams Curriculum development Updating teaching and learning environment Community outreach and counselling Hostels Civil works and equipment 	<p>Percentage of sanctioned posts filled</p> <p>Number of faculty and administrators in higher education institutions who completed a short-term training program</p> <p>Number of universities that establish an online evaluation system for examinations</p> <p>Evaluation of updated curriculum implementation</p> <p>Improved satisfaction levels of beneficiaries (students and faculty) in participating institutions</p>	<p>Increase on-time graduation rate of students in undergraduate degree programs (ST, SC, and women)</p> <p>Quality improvement in selected colleges</p>	<p>Improving the quality and students' equitable access</p>
	<p>Results Area 2</p>	<p>Improvement of governance of colleges</p> <ul style="list-style-type: none"> Improvement of GBs function Governance benchmarking exercise Strengthening MIS 	<p>Strengthening the HED's MIS up to the specified standards</p> <p>Percentage of government-aided colleges that completed data entry using online FM system</p>		
	<p>TA</p>	<p>Improvement of FM and procurement system</p> <ul style="list-style-type: none"> Capacity building and TA for colleges and the HED Studies and M&E 	<p>Governance benchmarking score card exercise</p>		

Results Area 1: Improving quality of and students' equitable access to selected institutions

6. To 'improve quality of and students' equitable access to selected institutions', the Program will implement two activities (a) support to HEIs through IDGs and (b) State level initiatives for quality improvement

Activity 1.1 Institutional Development Plan (IDP) Grants (Performance-based Financing)

7. Through the development of these plans, managers at HEIs will gain experience in resource planning that looks beyond the day-to-day issues and focus on the long-term vision for the institution. Building capacities for more autonomous long-term planning will ensure sustainability beyond the project period.

8. The eligible activities that can be included by the colleges in their IDPs are enhancing of equity through remedial classes/consultations; induction classes for ST and SC students; short-term faculty training; contractual teachers; support to starting new degree programs and diploma and/or certificate programs; Wi-Fi/smart campus; language labs; design and offering of CBCS courses; curriculum development (for autonomous colleges); establishment of libraries/e-resource centers; community outreach activities; employment-oriented skills development courses; entrepreneurship programs; college-industry partnerships; career and counselling centers; academic exchange; enhancing of capacity for research and development activities including laboratories; minor civil works; and furniture and equipment. A maximum of 60 percent of the IDG can be used for civil works and equipment.

9. **IDP Operations Manual for colleges.** The Operations Manual includes objectives of the IDPs, IDP eligibility criteria for colleges; indicative IDP amount by types of institutions; eligible activities to be financed for colleges through the IDGs; IDP selection/evaluation criteria; fund flow mechanisms; IDP implementation arrangements and implementation support mechanisms; monitoring and reporting mechanism; FM, procurement, and safeguards (environment and social) guidelines; and IDP template.

10. **Evaluation of IDP proposals of colleges.** The proposed IDPs will be scored by a Quality Enhancement Committee based on the following criteria: (a) process of preparation of IDP proposal; (b) quality of implementation plan, (c) proposed interventions meeting the objectives of the OHEPEE, (d) monitoring and evaluation governance, and (e) sustainability. The information provided by the Evaluation Committee will be reviewed and validated by the HED and funds will be allocated accordingly. It is expected that under the OHEPEE, approximately 70 colleges will receive funding in the first round of selection based on the quality of their IDP and subsequently on performance. Apart from the quality of the IDP, two other selection criteria will be used: student demand for admission to the college and share of the ST and SC population in the district location of the college (in tribal districts only). Approximately another 70 colleges will be selected in a second round after 12–18 months.

11. Table 1.1 shows the different types of degree colleges in Odisha. All colleges, except the government colleges, are run by private management. Aided colleges get grants from the HED for teacher salaries and for various other purposes such as infrastructure development. Block

grant colleges get a fixed sum of grant-in-aid from the HED, determined by taking into account salaries and allowances of the staff. The balance salary to staff is to be paid by the GB of the college. The unaided colleges do not receive any resources from the government and the self-financing colleges are operating under the self-financing scheme.

12. Another approximately 660 colleges in Odisha which will not receive IDG will be able to benefit directly from an FDP and the activities to be implemented by the affiliated universities financed by their IDGs to improve their support to their affiliated colleges (see details in the next paragraph).

Table 1.1. Number of Degree Colleges in Odisha

Type of College	Total Colleges	Government Colleges	Aided Colleges	Block Grant Colleges	Unaided Colleges	Self-financing Colleges
Degree College	802	53	150	189	303	107

13. **IDP Operations Manual for universities.** The eligible state universities have been classified as follows: (a) affiliating universities and (b) non-affiliating universities. The IDPs of affiliating universities will focus on strengthening the linkages with their affiliated colleges. IDGs for universities will have two components: (a) Core Component and (b) CoE component. The Core Component will be mandatory for all IDP proposals. The CoE will be an optional part of the IDP. Eligible activities for the university IDPs will include efforts to assist affiliated colleges in achieving autonomous status, curriculum delivery innovations, faculty training, improving the examination system, and so on. In addition, the component will include support for activities aimed at improving their own equitable access and quality of the universities and for establishing new or strengthening of existing CoE. Eleven state universities have been invited to submit their IDPs. A maximum of 40 percent of the university IDGs can be used for civil works and equipment.

14. **Evaluation of IDP proposals of universities.** The proposed IDPs will be scored by a Quality Enhancement Committee based on the following criteria: (a) process of preparation of IDP proposal, (b) quality of implementation plan, (c) interventions meeting the objectives of the OHEPEE, (d) M&E governance, and (e) sustainability. The information provided by the Quality Enhancement Committee will be used by HED, which will decide on the amount to be provided to universities respectively for the fulfilment of accepted IDPs and support to CoEs.

15. The OHEPEE will support a limited number of CoEs focused on research at state universities through a competitive selection. A CoE is defined as a hub for excelling in research applied to the development priorities of the state of Odisha. Eligible CoEs under the OHEPEE may be established in partnership with other relevant institutions in Odisha, including affiliated colleges, other Indian states, and internationally. A template for the CoE applications has been developed as part of the operational IDP Manual for the universities. The universities are required to submit their proposals as an integrated part of the university's IDP application. The CoE proposals shall be evaluated by a PRC based on the following criteria: (a) relevance, (a) results orientation, (c) practicality, (d) dissemination and networking, and (e) sustainability.

16. **Faculty development and leadership in context of IDP.** Through IDGs, the Program will support the short-term training programs for administrative staff and faculty of the selected colleges and universities, and training provided by IDG-recipient universities for non-IDG colleges. The topics of these trainings focus on among other need-based topics, subject-related content, pedagogy, finance, administration, and leadership development for principals, senior staff in the institutions and administrators. A systematic needs assessment will be carried out in which the Academic Staff Colleges and Human Resource Development Centers at the universities will play a key role before the development and delivery of the training programs. In addition, reputed resource institutions and experts from within and outside the state will be identified and invited to conduct the trainings.

17. **Skills development at colleges and universities.** The study Assessment of Integration of Skill Development and Financial Support to students in Higher Education¹³ shows that the CBCS in HE allows students to opt for skill enhancement courses. However, due to lack of infrastructure and trained faculty to deliver such courses, institutions are finding it difficult to offer and implement such courses. The curriculum for all courses under the CBCS and 67 skill courses were developed by the respective curriculum committees of the universities. At present, only 40 percent of the skill courses offered in the HEIs are aligned to the National Skills Qualification Framework and are neither certified by any Sector Skill Councils nor acknowledged by relevant industry body. Moreover, there is no opportunity for students to acquire entrepreneurship skills. This is important not only for students who may not be willing to migrate for jobs but also for students who would aspire to be an employer to create jobs for others.

18. The Program will, through the IDGs, support colleges and universities to strengthen existing skilling courses and initiatives, as well as introduce new innovative measures (that is, entrepreneurship at +3 level, which can be integrated with the ongoing skill development initiatives; introduction of massive open online courses [MOOCs] and portal with e-learning for resolving challenges of lack of availability of skilled faculty and inadequate content and enhancing the reach to the remote locations within the state and the choice of trades for students; industry linkages, internships, career counselling, and hands-on learning).

Activity 1.2 State level initiatives for quality improvement

19. The PMU will take up certain initiatives at the state level to improve the quality of teaching and learning in the colleges. These initiatives will include short term trainings for faculty to improve their skills; online student feedback system on faculty performance; skills development initiatives .

Results Area 2: Enhancing governance of the higher education system.

20. The following system-wide activities will be undertaken under Results Area 2:

¹³ This study was carried out by PricewaterhouseCoopers Private Limited as part of program preparation.

Activity 2.1: Improvement of governance in colleges

21. **Activity 2.1.1: The HED will develop and issue a regulation for composition of GBs of all non-autonomous government-aided and block grant colleges.** Institutional governance currently varies significantly across various types of colleges. Autonomous colleges are governed by an Executive Body according to UGC guidelines. Private, non-autonomous colleges are governed by GBs, currently headed by the local Member of Legislative Assembly. Government, non-autonomous colleges do not have GBs. The HED will develop and issue a regulation for the composition of GBs and their functioning for all government-aided non-autonomous colleges. Under the Program, guidelines on the composition of GBs in all affiliating colleges will be developed through a consultative process and will seek adequate representation from educators, industry, the student body, and civil society—which will include that the GB will meet at least four times a year and that the minutes of the GB will be available on the website of the college. Mechanisms will also be developed to monitor the implementation of these guidelines at colleges.

22. **Activity 2.1.2: Design and implementation of tool for governance benchmarking in selected colleges.** Benchmarking institutional performance in the areas of governance and management is an effective and non-disruptive way to make institutions aware of their own weaknesses and strengths, engaging them in collective learning and sharing of good practices, providing them with sound basis to address their limitations and later to observe the impact of their actions. Using a standardized benchmarking tool to score performance, participating institutions will have a comprehensive assessment of their governance practices, to allow them to monitor their progress and to compare themselves with other institutions.

23. There will be two rounds of governance and management benchmarking scorecard exercise to be conducted in years 2 and 4. The first round will help institutions map their performance in the dimensions of mission and goals, management, autonomy, accountability, and participation. The second round will allow them, using the same standardized tool, to assess progress.

24. In addition to producing an individualized report for each of the institutions, a statewide report will be generated to serve as a general benchmark for comparison purposes. The releasing of reports will allow institutions to engage in exchange of good practices in governance and management.

25. **Activity 2.1.3: An MIS for the Program will be developed by the HED for effective Program management of all colleges.** It will monitor the performance indicators and annual disbursement to the colleges.

26. **Activity 2.1.4: Development of an online system to publish the guidelines and results of the recognition process for all new colleges and the process for expansion of existing colleges.** The HED has a set of guidelines and minimum conditions to recognize new colleges and permit existing colleges to expand enrollment or the number of streams offered. Verification of the minimum conditions is based on inspections carried out by the Regional Director of

Education who makes recommendations to a high-powered committee that is responsible for decisions on recognition/expansion.

Activity 2.2: Improvement of financial and procurement management and accounting at all government and government-aided colleges

27. With the objective of strengthening FM and standardizing the accounting systems across the HEIs, the HED has adopted a web-based FM system (College Accounting Procedure Automation [CAPA]) in all the government-aided and block grant colleges. It has been designed to align with the Odisha Aided Educational Institutions Accounting Procedures Rules from 1985 and will help ensure standardization and uniformity in accounting practices across all aided colleges in Odisha. The HED, in consultation with the State Finance Department, is also considering the feasibility of implementing PFMS¹⁴ at the HEI level as an alternate option. Under the Program, the HED will develop a strategy for effective implementation of computerized FM systems in all the government-aided colleges. Colleges will adopt the Procurement Manual to follow the guidelines for all contracting and management of civil works, purchase of goods, and hiring consultant services.

Investment Project Financing - TA Component

28. **The TA component under the IPF (US\$5 million) will support the implementation of the PforR operation through capacity building, stakeholder consultations, TA, and research.** The key activities identified for this component are (a) capacity building for the project management unit (PMU) on areas of FM and procurement with particular focus on building clusters of capacity in remote districts; (b) development of partnerships with national capacity building institutions approved by MHRD and /or international HE institutions for faculty and leadership development at all the colleges and universities in Odisha;; (c) international experts for the governance and management benchmarking exercise; (d) study on the learning outcomes, creativity, and critical thinking skills among students and (e) the independent verification of the DLIs.

29. **The TA Component will also include a programme to assess student learning** in a manner that (a) tracks whether students are acquiring labor-market relevant generic skills during the three years of their undergraduate programmes; (b) provides feedback to institutes on specific areas for improvement in order to help students perform better; and (c) facilitates comparison across institutes and states to gauge the overall progress of the higher education system in Odisha.

¹⁴ Public Financial Management System (PFMS) is an initiative of the GoI to provide a uniform FM platform for all Central (and State) plan schemes. PFMS provides a database of all recipient agencies, integration with core solutions of banks handling plan funds, integration with State Treasuries, and efficient and effective tracking of fund flow to the lowest level of implementation for plan schemes of the Government. Through the Expenditure Advance and Transfer module and Direct Benefit Transfer module, PFMS provides information across all plan schemes/implementation agencies across the country on fund utilization leading to better monitoring, review, and decision support system to enhance public accountability in the implementation of plan schemes.

Institutional Arrangements

30. The main implementing agency for the proposed Operation would be the PMU housed in the HED to manage and oversee implementation of the Operation and the State's RUSA funds. The PD of the PMU will be responsible for both the RUSA scheme in the state and the OHEPEE supported by the World Bank. A team of professionals either on deputation or hired from the market as consultants with expertise in M&E, faculty development, MIS, procurement, and FM will support the PD in implementation and M&E of implementation of the Project activities.

31. A Steering Committee for the OHEPEE chaired by the Development Commissioner-cum-Additional Chief Secretary will be established and include Principal Secretaries, Higher Education and Finance Departments; Vice Chancellor, Utkal University; Engineer-in-Chief-cum-Secretary, Works Department; Commissioner-cum Secretaries, ST and SC Development, School and Mass Education, and Rural Development Departments; an academic from the HE sector; and the PD of the PMU who will also serve as Member-Convener to the Steering Committee. In addition, there will be special invitees to the Steering Committee. The Steering Committee will be responsible for approving the annual work plan and budget, endorsing HEIs selected for support under the project, reviewing project implementation progress and achievement of the PDO, and resolving implementation bottlenecks. The arrangements, policies, and procedures to guide project implementation on a day-to-day basis will be included in a PIM, which will be a living document. The PMU will prepare the PIM.

Program Monitoring and Evaluation

32. The TA component will support periodic faculty and student satisfaction surveys including a baseline survey within three months of project approval. The TA component will support the strengthening of linkages between the HEIs and employers, including building HEIs' capacity for tracking employment and wages through tracer studies. The project will also support special studies to evaluate the effectiveness of new incentive schemes and government support, introduced under the project, to improve equitable access, employability of graduates, and improving excellence in HEIs.

33. The PD of the PMU will be responsible for carrying out M&E activities, including periodic sector and project progress reviews, preparing and disseminating project progress reports, reporting on DLI achievements, other studies and evaluations, and independent verification of DLIs. The supported HEIs will report on agreed objectives and targets per IDP and the PMU will consolidate the M&E information according to the Results Framework from all implementing agencies.

34. The performance of the OHEPEE will be reviewed regularly, and the World Bank will provide continuous support to implement the Operation effectively. The PMU will also organize semiannual stakeholder reviews of the OHEPEE where the overall status of the Operation will be discussed. A wide range of stakeholders, including policy makers, technocrats, employers, academics, researchers, and representatives of civil society, will participate in the stakeholder reviews. The World Bank will also maintain continuous dialogue and provide technical advice and implementation support to the OHEPEE. Also, the World Bank will assist the GoO by

regularly undertaking HE policy analyses on topics that are considered important for future policy formulation and strategy development. These studies will be undertaken collaboratively with the GoO.

Annex 2: Results Framework Matrix

Results Framework

Program Development Objective: To improve the quality of and students' equitable access to selected institutions and enhance governance of the higher education system in Odisha.								
These results are at	Program Level							
Program Development Objective Indicators								
Indicator Name	DLI#	Unit of Measurement	Baseline	Cumulative Target Values				
				YR1	YR2	YR3	YR4	YR5
Results Area 1: Improving quality of and students' equitable access to selected institutions								
1. Improved quality of selected government and government-aided institutions. Percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation	1	%	20% of colleges	—	—	At least 25% of colleges	At least 30% of colleges	At least 35% of colleges
2. Improved student outcomes. Percentage of on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students)	2	%	Total: 60 SC: 51 ST: 42 Women: 67	—	—	—	Total: 65 SC: 56 ST: 47 Women: 72	Total: 70 SC: 61 ST: 52 Women: 77
3. Revised regulations on the creation/composition of Governing Bodies (GBs) and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations	4	Text	n.a.	The guidelines (GO) revised and issued	50% of colleges implement the revised guidelines (GO)	90% of colleges implement the revised guidelines (GO)	—	—
Intermediate Indicators								
Results Area 1: Improving quality of and students' equitable access to selected institutions								
Indicator Name	DLI #	Unit of Measurement	Baseline	YR1	YR2	YR3	YR4	YR5
1. Number of project beneficiaries (students) disaggregated by gender (core)		Number	661,700 (Female:	694,800 (Female:	727,800 (Female:	761,000 (Female:	794,100 (Female:	827,200 (Female:

			333,600)	350,300)	367,000)	383,000)	400,300)	417,000)
2. Annual performance milestones met by the HED and selected institutions	3	%	IDG-recipient institutions selected	—	75% of institutions achieved 60% institution-based annual milestones	75% of institutions achieved 70% institution-based annual milestones	75% of institutions achieved 75% institution-based annual milestones	75% of institutions achieved 75% institution-based annual milestones
3. Percentage of sanctioned posts filled with regular faculty in selected institutions (core)		%	74	75	80	85	90	95
4. Number (cumulative) of faculty and administrators in degree colleges and state universities who completed a short-term training program (by gender) (core)		Number	250 Male: 165 Female: 85	1,000 Male: 700 Female: 300	3,000 Male: 2,000 Female: 1,000	6,000 Male: 4,000 Female: 2,000	10,000 Male: 6,700 Female: 3,300	13,000 Male: 8,700 Female: 4,300
5. Number of affiliating universities that establish an online evaluation system for examinations		Number	0	—	—	2	4	6
6. Evaluation of the curriculum implementation		Text	—	Evaluation conducted	—	Evaluation conducted	—	—
7. Improved satisfaction levels of beneficiaries (students and faculty) in selected institutions (core)		Likert scale 5 degree points	n.a.	Initial satisfaction survey conducted for selected institutions and baseline satisfaction levels established.	—	Midterm satisfaction survey conducted. Satisfaction levels of stakeholders increased by 10 percent over the baseline.	—	End-term satisfaction survey conducted. Satisfaction levels of stakeholders increased by 20 percent over the baseline.
Results Area 2: Enhancing governance of the higher education system								
8. The HED's MIS strengthened up to the specified standards		Text	n.a.	Required specification developed	MIS strengthened up to the	—	—	—

				and testing completed	specified standards			
9. Percentage of selected government-aided colleges that completed data entry using online FM system	5a	%	0	20	60	95	—	—
10. Governance benchmarking score card exercise		Text	n.a.	—	Exercise carried out	—	Exercise carried out	—

Note: GO = Government Order.

Indicator Description

Indicator Name (#)	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
PDO Indicator 1 - DLI 1: Improved quality of selected institutions. Percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation	Improvement in the NAAC accreditation letter grades from the previous cycle of accreditation	Annually	NAAC data	—	HED	IVA	Yes
PDO Indicator 2 - DLI 2: Improved student outcomes. Percentage of on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students)	On-time graduation is defined as the proportion of students awarded undergraduate degree in its stipulated time of 3 years in the selected institutions.	Annually	Affiliating universities and IDG-recipient institutions	—	HED	IVA	Yes
PDO Indicator 3 - DLI 4: Revised regulations on the creation/composition of Governing Bodies (GBs) and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the	Regulations prepared by the HED outline the creation, composition, and functions of GBs to strengthen the governance of institutions. The membership of the body may vary from different categories of colleges, but	Annually	GO	—	HED	IVA	No

regulations	<p>consists of a group of independent members comprising representatives from different stakeholder groups whose goal is to ensure the college 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 GB, one of whom will be chosen by the members as its Chair. The GB is expected to meet at least four times a year, and the minutes of the GB meetings are to be published on the colleges' website.</p> <p>Year 1: The target is achieved when the regulation/GO is issued and made public on the HED website.</p>						
Intermediate Indicator 1: Number of project beneficiaries (students) disaggregated by gender (core)	<p>The number of students enrolled in all institutions in Odisha.</p> <p>The target number of student beneficiaries is based on projected increases in enrolment.</p>	Annually	SAMS and HED MIS	—	HED	n.a.	n.a.
Intermediate Indicator 2 - DLI 3: Annual performance milestones	A set of annual performance milestones will be jointly decided between the HED	Annually	HED MIS	—	HED	n.a.	n.a.

met by the HED and selected institutions	and World Bank during supervision missions.						
Intermediate Indicator 3: Percentage of sanctioned posts filled with regular faculty in selected institutions (core)	Faculty vacancy filled against the sanctioned posts. Faculty having a contract of minimum 2 years will be considered as regular faculty.	Annually	HED	—	HED	n.a.	n.a.
Intermediate Indicator 4: Number (cumulative) of faculty and administrators in degree colleges and state universities who completed a short-term training program (by gender) (core)	Example: If a faculty/administrator attends 2 different short-term training programs, it will be counted as 2. Short-term training is defined as training of 2 to 7 days' duration	Annually	HED MIS	—	HED	IVA	Yes
Intermediate Indicator 5: Number of affiliating universities that establish an online evaluation system for examinations	Affiliating universities have established an online evaluation system and implemented for the examinations for the affiliated colleges.	Annually	IDG annual progress reports	—	Affiliating universities	n.a.	n.a.
Intermediate Indicator 6: Evaluation of the curriculum implementation	—	In years 1 and 3	Expert report	—	HED	n.a.	n.a.
Intermediate Indicator 7: Improved satisfaction levels of beneficiaries (students and faculty) in selected institutions (core)	—	In years 1, 3, and 5	Survey reports	Survey	HED	n.a.	n.a.
Intermediate Indicator 8: The HED's MIS strengthened up to the specified standards	The specified standards will be defined in the manual to be developed by the PMU.	Annually	—	—	—	n.a.	n.a.
Intermediate Indicator 9 - DLI 5a: Percentage of selected government-aided colleges that completed data entry using online FM system (online accounting system)	—	Annually	—	—	—	IVA	No

Intermediate Indicator 10: Governance benchmarking score card exercise	An international customized governance benchmarking tool will be used for the benchmarking exercise, and a score card for each institution will be generated.	Annually	—	—	—	n.a.	n.a.
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Annex 3: Disbursement-linked Indicators, Disbursement Arrangements, and Verification Protocols

Disbursement-linked Indicator Matrix

<i>Disbursement-linked Indicators (DLIs)</i>	<i>Disbursement-linked Results (DLRs)</i>					
	<i>Baseline</i>	<i>Targets to Be Achieved in Year 1 April 2017– March 2018</i>	<i>Targets to Be Achieved in Year 2 April 2018– March 2019</i>	<i>Targets to Be Achieved in Year 3 April 2019– March 2020</i>	<i>Targets to Be Achieved in Year 4 April 2020– March 2021</i>	<i>Targets to Be Achieved in Year 5 April 2021– March 2022</i>
DLI 1: Improved quality of selected institutions. (Percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation)	20%	—	—	DLR 1.1: 25% of colleges	DLR 1.2: 30% of colleges	DLR 1.3: 35% of colleges
DLI values (US\$18 million)	—	—	—	US\$6 million	US\$6 million	US\$6 million
Disbursement deadline and formula	—	—	—	Rollover: Yes Scalability: Pro rata based. For each percentage point achieved over baseline, US\$ 1.2 million will be disbursed	Rollover: Yes Scalability: For each percentage point achieved over Year 3 target, US\$ 1.2 million will be disbursed	Rollover: Yes Scalability: For each percentage point achieved over Year 4 target, US\$ 1.2 million will be disbursed
DLI 2: Improved student performance. Increased on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students)	Total: 60 SC: 51 ST: 42 Women: 67	—	—	—	DLR 2.1(a) Total: 5% points over baseline DLR 2.1(b) SC: 5% points over baseline DLR 2.1(c) ST: 5 % point over baseline DLR 2.1(d) Women: 5% points over baseline	DLR 2.2(a) Total: 5% points over Year 4 target DLR 2.2(b) SC: 5% points over Year 4 target DLR 2.2(c) ST: 5% points over Year 4 target DLR 2.2(d)

<i>Disbursement-linked Indicators (DLIs)</i>	<i>Disbursement-linked Results (DLRs)</i>					
	<i>Baseline</i>	<i>Targets to Be Achieved in Year 1 April 2017– March 2018</i>	<i>Targets to Be Achieved in Year 2 April 2018– March 2019</i>	<i>Targets to Be Achieved in Year 3 April 2019– March 2020</i>	<i>Targets to Be Achieved in Year 4 April 2020– March 2021</i>	<i>Targets to Be Achieved in Year 5 April 2021– March 2022</i>
						Women: 5% points over Year 4 target
DLI values (US\$20 million)	—	—	—	—	DLR 2.1(a): US\$2.5 million DLR 2.1(b): US\$2.5 million DLR 2.1(c): US\$2.5 million DLR 2.1(d): US\$2.5 million	DLR 2.2(a): US\$2.5 million DLR 2.2(b): US\$2.5 million DLR 2.2(c): US\$2.5 million DLR 2.2(d): US\$2.5 million
Disbursement deadline and formula	—	—	—	—	Rollover: Yes Each DLR scalable on pro-rata basis. For each percentage point achieved over baseline, US\$ 0.5 million will be disbursed	Rollover: Yes Each DLR scalable on pro-rata basis. For each percentage point achieved over Year 4 target, US\$ 0.5 million will be disbursed
DLI 3: Annual performance milestones met by the HED and selected institutions	0% of institutions achieving annual performance milestones	DLR 3.1: HED has selected IDG Colleges and IDG Universities for Round 1 Deadline: September 30, 2017	DLR 3.2(a): HED has selected IDG Colleges and IDG Universities for Round 2 DLR 3.2(b): HED-PMU achieve annual milestones DLR 3.2(c): 75% of the selected	DLR 3.3(a): HED-PMU achieve annual milestones DLR 3.3(b): 75% of the selected institutions achieve at least 60% of institution-based annual milestones	DLR 3.4(a): HED-PMU achieve annual milestones DLR 3.4(b): 75% of the selected institutions achieve at least 80% of institution-based annual milestones	DLR 3.5(a): HED-PMU achieve annual milestones DLR 3.5(b): 75% of the selected institutions achieve at least 80% of institution-based annual

<i>Disbursement-linked Indicators (DLIs)</i>	<i>Disbursement-linked Results (DLRs)</i>					
	<i>Baseline</i>	<i>Targets to Be Achieved in Year 1 April 2017– March 2018</i>	<i>Targets to Be Achieved in Year 2 April 2018– March 2019</i>	<i>Targets to Be Achieved in Year 3 April 2019– March 2020</i>	<i>Targets to Be Achieved in Year 4 April 2020– March 2021</i>	<i>Targets to Be Achieved in Year 5 April 2021– March 2022</i>
			institutions achieve at least 40% of institution-based annual milestones			milestones
DLI values (US\$38 million)	—	US\$4 million	DLR 3.2(a): US\$5 million DLR 3.2(b): US\$8 million DLR 3.2(c): US\$3million	DLR 3.3(a): US\$3 million DLR 3.3(b): US\$3 million	DLR 3.4(a): US\$3 million DLR 3.4(b): US\$3 million	DLR 3.5(a): US\$3 million DLR 3.5(b): US\$3 million
Disbursement deadline and formula	—	DLR 3.1 Rollover: No Deadline for achievement: September 30, 2017	DLR 3.2 (a) Rollover: No DLR 3.2(b): Rollover: Yes DLR 3.2(c): Rollover: Yes Scalability: Pro rata based on increase in percentage of institutions achieving 40% of institution-based annual milestones. For each 25 percentage points achieved over baseline of 0, US\$ 1 million	DLR 3.3 (a) Rollover: Yes DLR 3.3(b): Rollover: Yes Scalability: Pro rata based on increase in percentage of institutions achieving 60% of institution-based annual milestones. For each 25 percentage points achieved over baseline of 0, US\$ 1 million will be disbursed	DLR 3.4 (a) Rollover: Yes DLR 3.4(b): Rollover: Yes Scalability: Pro rata based on increase in percentage of institutions achieving 80% of institution-based annual milestones. For each 25 percentage points achieved over baseline of 0, US\$ 1 million will be disbursed	DLR 3.5 (a) Rollover: Yes DLR 3.5(b): Rollover: Yes Scalability: Pro rata based on increase in percentage of institutions achieving 80% of institution-based annual milestones. For each 25 percentage points achieved over baseline of 0, US\$ 1 million will be disbursed

<i>Disbursement-linked Indicators (DLIs)</i>	<i>Disbursement-linked Results (DLRs)</i>					
	<i>Baseline</i>	<i>Targets to Be Achieved in Year 1 April 2017– March 2018</i>	<i>Targets to Be Achieved in Year 2 April 2018– March 2019</i>	<i>Targets to Be Achieved in Year 3 April 2019– March 2020</i>	<i>Targets to Be Achieved in Year 4 April 2020– March 2021</i>	<i>Targets to Be Achieved in Year 5 April 2021– March 2022</i>
			will be disbursed			
DLI 4: Revised regulations on the creation/composition of GBs and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations	0% of colleges implement the revised guidelines	DLR 4.1: HED has revised and issues the guidelines for creation/composition of GBs in colleges	DLR 4.2: 50% of colleges implement the revised guidelines	DLR 4.3: 90% of colleges implement the revised guidelines	—	—
DLI values (US\$18 million)	—	US\$6 million	US\$6 million	US\$6 million	—	—
Disbursement deadline and formula	—	Rollover: Yes	Rollover: Yes Scalability: Pro-rata based. For each additional 10 percentage points achieved over baseline US \$1.2 million will be disbursed	Rollover: Yes Scalability: Pro-rata based. For each 10 additional percentage points achieved over Year 2 target US\$ 1.5 million will be disbursed	—	—
DLI 5: Improved fiduciary management in selected institutions						
(i) Percentage of selected institutions that completed data entry using online FM system (online accounting system)	0% of selected aided colleges completed data entry using online FM system.	DLR 5.1 (a): HED issued an executive office order mandating the use of online FM system in government-aided colleges in Odisha.	DLR 5.2 (a): 60% of selected aided colleges completed data entry using online FM system.	DLR 5.3 (a) :90% of selected aided colleges completed data entry using online FM system.	—	—
(ii) Enhanced procurement management	0% of contracts awarded within original validity period	DLR 5.1 (b): HED issued order to higher education institutions for the adoption of the HED Procurement	DLR 5.2 (b): 40% of all contracts awarded by the selected institutions are within the	DLR 5.3 (b): 50% of all contracts awarded by the selected institutions are within the	DLR 5.4 (b): 60% of all contracts awarded by the selected institutions are within the	—

<i>Disbursement-linked Indicators (DLIs)</i>	<i>Disbursement-linked Results (DLRs)</i>					
	<i>Baseline</i>	<i>Targets to Be Achieved in Year 1 April 2017– March 2018</i>	<i>Targets to Be Achieved in Year 2 April 2018– March 2019</i>	<i>Targets to Be Achieved in Year 3 April 2019– March 2020</i>	<i>Targets to Be Achieved in Year 4 April 2020– March 2021</i>	<i>Targets to Be Achieved in Year 5 April 2021– March 2022</i>
		Manual.	original validity period.	original validity period.	original validity period.	
DLI values (US\$20 million)	—	DLR 5.1 (a): US\$4 million DLR 5.1 (b): US\$4 million	DLR 5.2 (a): US\$3 million DLR 5.2 (b): US\$2 million	DLR 5.3 (a): US\$3 million DLR 5.3 (b): US\$2 million	DLR 5.4 (b): US\$2 million	—
Disbursement deadline and formula	—	DLR 5.1 (a): Rollover: No Deadline for achievement: September 30, 2017 DLR 5.1 (b): Rollover: Yes Deadline: October 31, 2017	DLR 5.2 (a): Rollover: No Scalability: pro-rata based. For each 10 percentage points achieved over baseline of 0, US\$ 0.5 million will be disbursed DLR 5.2 (b): Rollover: No Scalability: Pro-rata based. For each 10 percentage points achieved over baseline of 0, US\$ 0.5 million will be disbursed	DLR 5.3 (a): Rollover: No Scalability: pro-rata based. For each 15 percentage points achieved over baseline of 0, US\$ 0.5 million will be disbursed DLR 5.3 (b): Rollover: No Pro rata based. For each 12.5 percentage points achieved over baseline of 0, US \$0.5 million will be disbursed	DLR 5.4(b): Rollover: No Pro rata based. For each 15 percentage points achieved over baseline of 0, US \$0.5 million will be disbursed	—
TOTAL (US\$114 million)	—	US\$18 million	US\$27 million	US\$23 million	US\$24 million	US\$22 million

Note: 1. Baselines and target values for these DLIs will be revised once the higher education institutions are selected for IDG.

2. In case of percentage targets the number will be rounded off to the closest whole number.

DLI Verification Protocol Table

#	DLI	Definition/Description of Achievement	Scalability of Disbursements (Yes/No)	Protocol to Evaluate Achievement of the DLR and Data/Result Verification		
				Data Source/Agency	Verification Entity	Procedure
1	DLI 1: Improved quality of selected institutions (Percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation)	<p>Definition of NAAC accreditation: NAAC accreditation for government and government-aided institutions is defined as the accreditation being valid as of March 31 of the respective year.</p> <p>Definition of NAAC grade: The letter grade score awarded by NAAC as a result of accreditation as mentioned in the notification available at http://www.naac.gov.in/docs/NOTICE-Revised%20grading%20system.pdf</p> <p>Definition of selected institutions: Institutions selected for the receipt of IDG under OHEPEE.</p> <p>For institutions accredited before July 1, 2016 - Letter grade for previous cycle of accreditation will be based on Cumulative Grade Points Average and will be aligned on the basis of the table given in http://www.naac.gov.in/docs/NOTICE-Revised%20grading%20system.pdf.</p> <p>DLR will be considered achieved as follows:</p> <p>Year 3:</p> <p>DLR 1.1: 25% of institutions accredited by NAAC improve their letter grade score from the grade in the previous cycle of accreditation.</p> <p>Year 4:</p> <p>DLR 1.2: 30% of institutions accredited by NAAC improve their letter grade score from the grade in the previous cycle of accreditation.</p> <p>Year 5:</p> <p>DLR 1.3: 35% of institutions accredited by NAAC improve their letter grade score from the grade in the previous cycle of accreditation.</p>	Yes	For the Years 3, 4, and 5 targets: The HED to forward accreditation notifications from NAAC website to the World Bank including the previous letter grade score in the previous accreditation cycle	The World Bank	The World Bank reviews the report on achievement of DLR prepared by the HED.

#	DLI	Definition/Description of Achievement	Scalability of Disbursements (Yes/No)	Protocol to Evaluate Achievement of the DLR and Data/Result Verification		
				Data Source/Agency	Verification Entity	Procedure
2	DLI 2: Increased on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students)	<p>Definition of on-time graduation: Defined as the percentage of students enrolled for 3-year undergraduate program in year (t-3) who pass all the requisite courses required for award of degree from the affiliating university to which their degree college is affiliated to, in its stipulated time of 3 years (that is, by year t) in the selected institutions.</p> <p>Definition of enrollment – number of students who have paid their examination fees for appearing examination of year (t-3) at the UG level</p> <p>Definition of selected institutions: Institutions selected for the receipt of IDG under OHEPEE.</p> <p>DLR will be considered achieved as follows:</p> <p>Year 4: Percentage of on-time graduating students in selected institutions is 60% for total students, 55% for SC students, 50% for ST students, and 70% for women.</p> <p>Year 5: Percentage of on-time graduating students in selected institutions is 65% for total students, 60% for SC students, 55% for ST students, and 75% for women.</p>	Yes	Affiliating universities to submit data of graduating students in year t and their admissions data (t-3 years) from selected college affiliated to them to the HED. The HED to calculate on-time graduation rate in each selected institution and submit to the World Bank.	The IVA commissioned by the HED	The World Bank reviews the IVA report on achievement of DLR endorsed by the HED. The IVA will visit each of the six affiliating universities and each autonomous college and verify, for a 2% sample of students from selected institutions, that the university has record of students passing all requisite courses for award of degree at the end of the year.
3	DLI 3: Annual performance milestones met by the HED and selected institutions	<p>Definition of selected institutions: Those institutions that have been selected based on the established guidelines and selection criteria to receive an IDG. An MoU will be signed between the institution and the HED.</p> <p>Definition of achievement of annual milestones: Selected institutions will have to achieve a set of milestones every year. These milestones may be common for all institutions, which when achieved will help them achieve their respective DLRs and help all institutions achieve minimum common quality standards. These milestones will be determined jointly</p>	Yes	<p>For the Year 1 target: The HED to forward signed MoUs to the World Bank</p> <p>For the Years 2, 3, 4, and 5 targets: The HED to forward a letter to the World Bank with progress report</p>	The IVA commissioned by the HED for Years 2, 3, 4, and 5 targets	<p>Years 1 and 5: The World Bank reviews the report on achievement of DLR prepared by the HED.</p> <p>Years 2, 3, 4, and 5: The independent party will do a sample check to assess the achievement of</p>

#	DLI	Definition/Description of Achievement	Scalability of Disbursements (Yes/No)	Protocol to Evaluate Achievement of the DLR and Data/Result Verification		
				Data Source/Agency	Verification Entity	Procedure
		<p>between the HED and the World Bank on a yearly basis. The HED will have different annual indicators.</p> <p>DLR will be considered achieved as follows:</p> <p>Year 1: HEIs are selected in Round 1 to receive an IDG by following the procedure set out in the IDP Operation Manual.</p> <p>Year 2: 75% institutions achieve 40% of institution-based annual milestones.</p> <p>Year 3: 75% institutions achieve 60% of institution-based annual milestones.</p> <p>Years 4 and 5: 75% institutions achieve 80% of institution-based annual milestones.</p>		for each institution against the performance indicators.		annual indicators.
4.	DLI 4: Revised regulations on the creation/composition of GBs and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations	<p>Definition of GB: A body with overall responsibility for the strategic direction and accountability of the college.</p> <p>Definition of development of regulations on the creation/composition of the GB: Issue of a GO in the Gazette of the GoO that requires all affiliated government-aided colleges in Odisha (whether autonomous or non-autonomous) to constitute a GB. The GO will also mention the composition of the GB; tenure, qualifications, and functions of the members of the GB; and minimum number of meetings of the GB in a year.</p> <p>Definition of implementation of the regulations by an affiliated government-aided college: Declaration of the composition of its GB, with the professional background of the GB members on its website. In addition, minutes of all past GB meetings must be published on the colleges' websites within two months of the date of the meeting, such that a search from the college's website using the term 'Governing Body' yields a link/links to the minutes.</p>	Yes	<p>For the Year 1 target:</p> <p>The HED to submit a copy of the relevant Gazette of the GoO to the World Bank before October 2017.</p> <p>For the Years 3 and 5 targets:</p> <p>The HED to submit a consolidated overview of government-aided colleges that have implemented the regulation, along with links to the</p>	The World Bank	The World Bank reviews the report on achievement of DLR prepared by the HED.

#	DLI	Definition/Description of Achievement	Scalability of Disbursements (Yes/No)	Protocol to Evaluate Achievement of the DLR and Data/Result Verification		
				Data Source/Agency	Verification Entity	Procedure
		<p>DLR will be considered achieved as follows:</p> <p>Year 1: The HED issues the GO in the Gazette of the GoO and publishes on the HED website.</p> <p>Year 3: 50% of colleges implement the revised GO on creation/composition of GB.</p> <p>Year 5: 90% of colleges implement the revised GO on creation/composition of GB.</p>		‘Board of Governors’ page on their website to the World Bank.		
5	<p>DLI 5: Improved fiduciary management in selected institutions</p> <p>(i) Percentage of selected aided institutions that completed data entry using online FM system</p>	<p>Definition of completing data entry using online FM system: Data entry in online FM system, mandated in the executive order issued in Year 1, is said to be completed if the backlog in data entry is less than 30 days.</p> <p>Aided colleges will include block-grant colleges and government-aided colleges.</p> <p>DLR will be considered achieved as follows:</p> <p>Year 1: The HED issued an executive office order mandating the use of online FM system at all the aided colleges in Odisha.</p> <p>Year 2: 60% selected government-aided colleges completed data entry using online FM system.</p> <p>Year 3: 90% selected government-aided colleges completed data entry using online FM system.</p>	Yes	<p>For the Year 1 target: The HED to forward the copy of executive office order to the World Bank.</p> <p>For the Years 2 and 3 targets: Online FM system dashboard reports from the HED website (to be developed) available in public citizen domain</p>	The World Bank	The World Bank reviews the report on achievement of DLR prepared by the HED.
	(ii) Enhanced procurement management	<p>Definition of adoption of Procurement Manual: A Procurement Manual will be issued by the HED, and it is said to be adopted if the respective institution sends a compliance letter to the HED.</p> <p>Original validity period for different types of procurements will be defined in the Procurement Manual.</p> <p>DLR will be considered achieved as follows:</p> <p>Year 1: 100% of selected institutions adopt the</p>	Yes	For the Year 1 target: The HED to forward a letter to the World Bank stating the fulfilment of the target	—	—

#	DLI	Definition/Description of Achievement	Scalability of Disbursements (Yes/No)	Protocol to Evaluate Achievement of the DLR and Data/Result Verification		
				Data Source/Agency	Verification Entity	Procedure
		<p>Procurement Manual issued by the HED.</p> <p>Year 2: 40% contracts for procurement under IDP by selected colleges and universities are awarded within the original validity period.</p> <p>Year 3: 50% contracts for procurement under IDP by selected colleges and universities under the IDG are awarded within the original validity period.</p> <p>Year 4: 60% contracts for procurement under IDP by selected colleges and universities are awarded within the original validity period.</p>				

Bank Disbursement Table

Number	DLI	Bank Financing Allocated to the DLI	Of Which Financing Available for Prior Results	Deadline for DLI Achievement	Minimum DLI Value to Be Achieved to Trigger Disbursements for Bank Financing	Maximum DLI Value to Be Achieved for Bank Disbursement Purposes	Determination of Financing Amount to Be Disbursed against Achieved and Verified DLI Value(s)
1	Improved quality of selected institutions (increased percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation)	US\$18 million	—	March 30, 2022	25% of colleges	35% of colleges	Scalable
2	Increased on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students)	US\$20 million	—	March 30, 2022	Total: 5% points over baseline SC: 5% points over baseline ST: 5% points over baseline Women: 5% points over baseline	Total: 5% points over Year4 target SC: 5% points over Year4 target ST: 5% points over Year4 target Women: 5% points over Year4 target	Scalable

<i>Number</i>	<i>DLI</i>	<i>Bank Financing Allocated to the DLI</i>	<i>Of Which Financing Available for Prior Results</i>	<i>Deadline for DLI Achievement</i>	<i>Minimum DLI Value to Be Achieved to Trigger Disbursements for Bank Financing</i>	<i>Maximum DLI Value to Be Achieved for Bank Disbursement Purposes</i>	<i>Determination of Financing Amount to Be Disbursed against Achieved and Verified DLI Value(s)</i>
3	Annual performance milestones met by the HED and selected institutions	US\$38 million	US\$4 million	March 30, 2022	IDG-recipient institutions for Round 1 selected by the HED	75% institutions achieve 80% of institution-based annual milestones.	Scalable
4	Revised regulations on the creation/composition of GBs and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations	US\$18 million	—	March 30, 2022	The guidelines for the creation/composition of GBs revised and issued	90% of colleges implement the revised guidelines (GO).	Scalable
5(i)	Improved fiduciary management in selected institutions (a) Percentage of selected aided institutions that completed data entry using online FM system	US\$10 million	—	March 30, 2022	The HED issued an executive office order mandating the use of online FM system in aided colleges in Odisha.	90% of selected aided colleges completed data entry using online FM system.	Scalable
5(ii)	Improved fiduciary management in selected institutions (b) Enhanced procurement management	US\$10 million	—	March 30, 2022	HED issued order to selected higher education institutions for adoption of HED Procurement Plan	80% contracts are awarded within the original validity period.	Scalable

Annex 4: Technical Assessment

Description and Assessment of Program Strategic Relevance and Technical Soundness

Program Strategic Relevance

1. The proposed Program is strategically relevant as it supports key aspects of Odisha's vision for the HE sector as articulated in its State Higher Education Plan, which seeks to 'couple access with quality and inclusion'. In a broader context, Odisha has a growing need for skilled manpower to supply the manufacturing and services sectors. The share of agriculture in GSDP has been declining steadily, exacerbated by a severe draught in 2015–16; agriculture now accounts for 17.93 percent of GSDP, while manufacturing and services account for 40.93 percent and 41.14 percent, respectively.¹⁵ Despite the declining share of agriculture in GSDP, more than 60 percent of the workforce is still employed in agriculture. Consequently, the largest share of incremental demand for labor is expected to come from sectors that require highly skilled workers such as banking and financial services, education and skill development, information technology (IT), and health care.¹⁶

2. High poverty levels are a key challenge faced by Odisha's economy, with 32.59 percent of the population below the poverty line.¹⁷ Of particular concern is the high incidence of poverty among SCs and STs, with 63.52 percent and 41.39 percent of the population in these groups falling below the poverty line, respectively. Together, these groups account for almost 40 percent of Odisha's population. High poverty levels among SCs and STs also result in regional disparities in poverty levels—the southern and northern regions, with a high concentration of SCs and STs, have significantly higher levels of poverty at 48 percent and 40 percent, respectively, as against 21.7 percent in the coastal region.¹⁸ The Program's focus on equitable access to HE can play a significant role in reducing poverty among SCs and STs. The private returns to HE are substantial and significantly higher than the returns to secondary education. Based on a simple age-earnings profile of individuals in the age group 18–60,¹⁹ the net present value (NPV) of the incremental lifetime earnings of undergraduate degree holders over senior secondary completers, net of direct and opportunity costs, is INR 285,166 (US\$4,256) higher at 2017 prices, while the incremental earning of postgraduate degree holders over undergraduate degree holders is a further INR 552,597 (US\$8,248) (193 percent higher than undergraduate degrees). The lessons learned through the pilot of new colleges in remote tribal-dominated areas will also inform the expansion of HE in these areas, ultimately providing a crucial pathway to reducing regional disparity.

3. The private benefits to HE include better jobs, both with regard to the type of job (white-collar versus agricultural and factory labor and crafts) and with regard to contractual conditions. Almost 70 percent of those with undergraduate degrees and 88 percent of those with postgraduate degrees work in white-collar occupations (legislators/senior officials, professionals,

¹⁵ Odisha State Annual Plan 2016–17.

¹⁶ National Skill Development Corporation, 2011, Skill Gap Assessment for the State of Odisha.

¹⁷ NSS 68th Round, 2011–12 based on the Tendulkar methodology.

¹⁸ *ibid.*

¹⁹ NSS 68th (2011–12) round data was smoothed to generate the age-earnings profiles using the equation: $Y = a + b_1age + b_2age^2$, where Y is the annual income.

technicians and associated profiles, and clerks), as against 44 percent of higher secondary completers. Those who have completed HE also work in larger enterprises, have long-term written job contracts, receive social security benefits, and are eligible for paid leave more frequently than those with general degrees.

4. Despite the high private returns to HE, public intervention through the Program is necessitated for a number of reasons. There is considerable inequality in access to HE. Far fewer females, SCs, and STs complete undergraduate or postgraduate degrees than the overall average, at 8.3 percent, 6.1 percent, and 9.4 percent, respectively, against an overall average of 12.1 percent. Nearly 16 percent of males, on the other hand, complete HE degrees (Table 4.1).

Table 4.1. Highest Level of Education Completed by Gender/Caste Category (in %)

Level of Education Completed	Higher Secondary or below	Undergraduate Degree (General)	Postgraduate Degree (General)
All individuals	87.9	8.9	3.2
Male	84.1	11.8	4.1
Female	91.7	6.0	2.3
ST	90.6	7.5	1.9
SC	93.9	4.6	1.5

Source: NSS 68th Round, 2011–12.

5. Despite nearly 64 percent²⁰ of students in HE being enrolled in privately owned colleges, the HE sector relies heavily on public support. More than two-thirds of those enrolled in privately owned colleges are enrolled in aided colleges, which receive either 100 percent or 40 percent (depending on whether they are aided or block-grant colleges) of earmarked expenditures as grants from the government. Almost 55 percent of the HE plan budget is spent on grants-in-aid to these colleges.²¹ Apart from their reliance on financial aid from the government, these colleges function under government regulations that, in most part, coincide with the regulations governing government-owned colleges. However, these colleges are outside the purview of the major GoI HE development scheme, RUSA, and stand to benefit greatly from the range of developmental activities and reforms planned under the Program. In particular, almost 80 percent of the colleges that will receive IDGs under the Program are expected to be private-aided colleges.

6. The Program's focus on quality addresses another major gap in the general HE system. While data on quality indicators are currently not available, accreditation outcomes indicate significant quality challenges. Only 23.4 percent of colleges have been accredited by NAAC at least once, and only 10 general colleges in the state received an 'A' grade from NAAC.

7. Finally, TA provided under the Operation will help improve sector governance with regard to better planning, management, relevance, and M&E. This is important because of the government's significant role in the sector both through the government colleges and also as the major source of finance and regulation for the private colleges.

²⁰ NSS 68th (2011–12) round data was smoothed to generate the age-earnings profiles using the equation: $Y = a + b_1age + b_2age^2$, where Y is the annual income.

²¹ Government of Odisha Annual Plan 2016–17

Technical Soundness

8. The Program addresses the HE sector as a whole, providing targeted grants to selected colleges and universities and also improving the HE system by developing the affiliating universities, and through interventions focusing on improved system governance and management. The focus on affiliating universities (all six affiliating universities are expected to receive IDG support) will ensure that Program interventions lead to quality improvements across all 743 affiliated colleges in Odisha. These interventions can serve as a cost-effective means to achieve scale in a large and diverse technical education system. For instance, the affiliating universities are responsible for curricula and evaluation for all their non-autonomous affiliated colleges. The quality of student evaluations in particular requires improvement; a survey carried out during project preparation showed that most affiliating universities lack transparent and effective systems for examination setting and evaluation. Among the menu of activities available to affiliating universities under their IDPs is the setting up of online examination and evaluation systems, which will significantly improve transparency and governance of examinations across the entire sector.

9. The CoE component under the IDG to universities will be the first targeted support for interdisciplinary research in HE in Odisha. While specific data on the volume of research in general HE is not available, research output is low with little to no research of an international standard. Apart from supporting research linked to the social and economic context of the state, the greater availability of funds for research will allow all universities to scale up their PhD programs. This is particularly vital given the widespread faculty shortages in Odisha.

10. To complement this intervention, short-term FDPs will provide opportunities for training to all full-time HE faculty in the state. Currently, most faculty receive training only at the time of induction and domain-specific, promotion-linked training once in their careers. While some short-term training is currently available, the design of a more systematic training program based on a statewide needs assessment and the scaling-up of short-term training programs are expected to expand career development opportunities for faculty and facilitate the integration of best practices in teaching and research into the HE sector.

11. The development of IDPs by eligible colleges and universities will be the first strategic planning exercise for most of these institutions. The process of IDP development is backed by capacity building by the leading management institute in the state and through significant involvement of the affiliating universities, which have led this process. In addition to improved institutional planning, this process will strengthen the linkages between colleges and their universities, leading to a more meaningful affiliation relationship that includes mentorship and capacity development by the affiliating university. The IDP process will also strengthen accountability and incentivize improved performance by linking the disbursement of grants to periodically updated performance targets. Together, these performance targets will form a logical sequence of results which lead to the achievement of Program objectives.

12. The Program draws heavily on lessons learned from other World Bank HE programs, both in India and globally. In particular, the World Bank's experience with the TEQIP series of projects has emphasized the importance of strong governance at the institution level. The

development of guidelines for the composition of Boards of Governors, based on a broad consultation, and the establishment of standards for their functioning will place accountability for the broad strategic direction of each college with a single body and lead to more effective, decentralized decision making. The governance benchmarking process will be used to assess and further strengthen governance at the institutional level. The adoption of web-based, computerized accounting systems will lead to a sector-wide improvement in FM.

13. Finally, while there has been a dramatic expansion in vocational education in Odisha, particularly through large, privately owned universities, the HE curriculum, in practice, has little by way of developing employment-related skills. This is reflected, in part, in the low levels of labor force participation of HE graduates, with only 74 percent in or available for employment. The introduction of the CBCS allows students to customize a part of their curriculum, including by studying skill-based courses. The Program’s support for skill development through the IDGs will allow colleges to introduce a broad range of measures targeted toward employability, including entrepreneurship programs, stronger industry linkages, career counselling, and internship programs.

Program Expenditure Framework

Program’s Resource Envelope and Boundary

14. The PforR Program is valued at US\$165 million and includes all activities under the OHEP from 2018 to 2022 excluding those financed by RUSA, salaries, and scholarships. Table 4.2 presents the Program Expenditure Framework. The expected Program budget allocations are clearly aligned with government priorities, and the expenditure framework composition is derived from the approved HED budget.

Table 4.2. PforR Expenditure Framework (FY18-FY22) by Cost Categories

Category		Amount (US\$ million)	Share of Total (%)
Results Area 1:			
IDG for universities			
	Civil works and equipment	19	12
	Teaching and learning materials, contractual teachers, staff development, curriculum development, research, remedial classes, and capacity development	13	8
IDG for colleges			
	Civil works and equipment	69	42
	Teaching and learning materials, contractual teachers, staff development, curriculum development, remedial classes, and capacity development	49	29
State level initiatives for quality improvement			
	Faculty trainings, online student feed-back system, skills development	10	6
Results Area 2:			
System strengthening			
	Education Management Information System; HED administrative cost; and improvement of fiduciary, government, and management systems	5	3
Total		165	100.0

15. The program will finance IDGs to selected colleges and Universities and state level initiatives to improve quality in the selected institutions. The IDGs to universities and colleges represent a significant qualitative shift in the expenditure patterns of selected institutions. It is expected that a maximum of 60 percent of the IDGs for colleges will be utilized toward civil works and equipment (maximum of 40 percent for universities) with the remainder used for incremental recurring costs occurring out of development activities and salaries of new contractual teachers hired. This is in stark contrast to current expenditure patterns where nearly 90 percent of expenditure is on faculty and staff salaries.

Financial Sustainability and Funding Predictability

16. Over the past five years, Odisha has spent an average of 0.4–0.6 percent of its GSDP on HE (non-technical), which is marginally above the national average public expenditure on HE (0.3–0.5 percent of GDP). With regard to public expenditure on HE as percentage of total government expenditure, Odisha spends more than most of the Indian states and has also allocated a higher budget when compared to the national average. While the Central Government expenditure has been less than 2 percent of the total budgeted expenditure, Odisha has spent around 3 percent toward HE.

17. The alignment of program expenditure with government priorities is evidenced by the surge of the HE budget that started in 2015 (48 percent year on year) and is projected to continue for at least five more years (albeit at a slower rate). Budget execution appears to be free of major problems. While expenditure fell short of the budgetary provision by almost 24 percent in FY15 due to the jump in the budgetary provision, expenditure quickly caught up the following year and was only 6.8 percent less than budgeted.

Table 4.3. The HED’s Budget Provision and Total Expenditure between 2011–12 and 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16
Budget provision (US\$, millions)	184.73	204.62	228.10	337.54	311.70
Total expenditure (US\$, millions)	176.27	178.80	212.83	257.26	290.28
% of budget and expenditure gap	4.58	12.62	6.69	23.79	6.87

18. Expenditure on infrastructure/civil works, which is often subject to regulatory delay, has also been on track with the HED spending 100 percent of its infrastructural development budget over the past five years.

19. The future outlook for the state economy and public finances leads to the anticipation that the Program will be sustainable. Between 2004–05 and 2015–16, GSDP expanded at a CAGR of 10.25 percent. The economy is expected to grow at a rate of 8.1 percent over the next five years, and there are indications that the effectiveness of core government systems will be ensured over the long term. Skill development and HE in particular have been flagged repeatedly by the GoO as priority areas, and the recent hike in the HE budget is evidence of this new priority. The Program cost falls within the overall HE fiscal space and amounts to less than 2 percent of total estimated public expenditure (on all sectors) over the period.

Monitoring and Evaluation

20. There are currently several mechanisms for the M&E of HE in Odisha. The SAMS is used to manage the centralized online admission system and contains data on students enrolled in the first year of degree programs. The AISHE is a comprehensive administrative database for HE that relies on self-reporting by universities and colleges. While reporting under the AISHE is high, with 100 percent of colleges reporting data in 2015–16, there are indications that the quality of data reported is poor. A comparison of the AISHE with the SAMS database found large discrepancies in the data on first-year enrollment. The HED also uses a network of DLCs as an ad hoc measure for data collection when data not covered under the AISHE/SAMS is required.

21. The Program will strengthen the M&E capacity in several ways. First, all institutes eligible for IDGs are required to submit detailed baseline data along with their IDPs, the quality of which will be assured during the IDP preparation phase. Second, performance benchmarks for the release of IDGs will be linked to compliance with the AISHE and include quality checks. Third, the development of an MIS at the HED level and the recruitment of M&E consultants for the PMU will increase the capacity of the M&E system. Fourth, the Program will also support periodic faculty and satisfaction surveys including a baseline survey to be conducted within three months of the World Bank’s Board approval of the program. The tracking of employment and wages will take place through tracer studies of recent graduates, and Program interventions will be evaluated through a series of targeted studies. Finally, a comprehensive Results Framework has been designed to monitor key program interventions, outputs, and impacts. The Results Framework includes a series of DLIs backed by a comprehensive verification protocol (see annex 3). The choice of DLIs is explained in table 4.1.

Table 4.4. Justification for the Chosen DLIs

DLI	Justification
DLI 1: Improved quality of selected government and government-aided institutions (increased percentage of selected colleges that have improved their NAAC grade from the previous cycle of accreditation)	NAAC accreditation process and grading are meant to be measurements of the quality of the institutions. Currently, 67 institutions have a B and above grade, 14 institutions have a B+ and above grade, and some have applied for accreditation. Achievement of this indicator will mean that more number of institutions strive for quality improvement on the dimensions of NAAC and get improved grades as well as get accreditation.
DLI 2: Increased on-time graduation rate of students in undergraduate degree programs in selected institutions (disaggregated by women, ST, SC, and total students)	The current on-time graduation rate is 55% and much lower for the ST students at 45%. This DLI will measure the internal governance of the undergraduate programs in improving the on-time graduation rates such that more students complete their graduation in the stipulated time frame of three years. With the targeted quality interventions in the colleges like orientation, remedial classes, short-term teacher training, and improved student-centered pedagogy, it is expected that the on-time graduation rate will improve.
DLI 3: Annual performance milestones met by the HED and selected institutions	Achievement of this DLI will incentivize the HED and selected institutions to meet milestones that will be set annually jointly by the HED and the World Bank. Meeting these milestones annually will help improve the quality standards of all the institutions as well as to meet their respective disbursement.

DLI	Justification
DLI 4: Revised regulations on the creation/composition of GBs and their functioning issued by the HED and percentage of affiliated government-aided colleges that implement the regulations	Lessons from other HE projects in India have shown that strong institutional governance is a prerequisite for success. However, political economy considerations often make it difficult to implement governance reforms. This DLI will incentivize the setting up of independent GBs that meet regularly and function transparently.
DLI 5: Improved fiduciary management in selected institutions (i) Percentage of selected aided institutions that completed data entry using online FM system (ii) Enhanced procurement management	Accounting at the college level is currently manual and not based on a double-entry system. To ensure improved FM and transparency, this DLI will incentivize the adoption and use of the online FM system of accounting. The implementation of the Program will lead to a significant increase in the size and complexity of the contracts awarded by colleges. The adoption of the State Procurement Manual and its use to award contracts on time is key to effective Program implementation.

Economic Justification

22. The cost-benefit analysis quantifies program benefits and costs in Indian rupee terms, where data are available, to compute the program’s economic internal rate of return (EIRR). The EIRR indicates the rate of return at which the present value of the economic costs and benefits of the program are equal. The EIRR is compared to the socially required rate of return, assumed to be 12 percent.²² An EIRR higher than the socially required rate of return indicates that the Program is feasible. The cost-benefit analysis yields an EIRR of 14 percent.

23. The Program benefit streams, for which sufficient data are available to quantify the economic value, accrue from four channels. First, improvements in HE lead to an increase in enrollment at the undergraduate and postgraduate levels. This increase in enrollment has a priced economic benefit equal to the present value of the incremental earnings of HE graduates over senior secondary graduates, net of direct and opportunity costs. Second, improved teaching and learning increases the completion rate in HE. Third, an improvement in the skill level and productivity of labor market entrants increases the wage premium earned by HE graduates. Fourth, improvements in employability and higher wage premiums increase the worker population ratio of HE graduates.²³ All benefits from increased enrollment, higher employment, and wage premiums are computed separately for undergraduate and postgraduate degrees, to account for the different economic returns to these degrees.

24. The wage premium for HE has been defined as the present value of the incremental earnings of HE graduates (undergraduate or postgraduate) over senior secondary graduates, net of direct and opportunity costs. This is computed using an age-earnings profile generated from NSS 68th round data using a simple smoothing equation:

$$Y = a + b_1age + b_2age^2,$$

²² Traditionally, the World Bank uses discount rates of 10–12 percent for World Bank-funded projects. Discount rate of 12 percent is used to reflect the high opportunity cost of capital in a developing economy.

²³ The number of persons employed divided by the reference population.

where Y is annual earnings derived by multiplying earnings during the NSS reference week by 52. The age-earnings profile generated by the predicted Y's was used to generate the incremental returns to a higher degree using the formula:

$$\text{Incremental returns at age } i = (\text{Predicted earnings for a HE graduate, at age } i) - (\text{direct expenses on education at age } i \text{ [if studying]}) - (\text{predicted earnings for a senior secondary graduate at age } i)$$

The last term on the right-hand side of this formula is the opportunity cost of enrollment if the individual is enrolled in HE. 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 71st round data. Finally, the lifetime return to a HE degree was calculated as the NPV (12 percent discount rate) of the incremental returns from age 18 to 60.

25. Program costs are divided into three major components: (a) the cost of increased enrollment in HE borne by institutions and the central and state governments; (b) program-related investment costs, assumed to be 50 percent of the total program funding, based on the program design; and (c) program-related incremental recurring costs, assumed to be 50 percent of the total program funding and projected to continue after the close of the program, based on the program design.

26. All program costs and benefits are converted to 2017 (based on estimated inflation for FY16–17) prices, and the cost and benefit streams are computed up to 2057, the year the first program cohort will leave the education market. This is standard practice for education projects. Table 4.5 summarizes the key variables used in the cost-benefit analysis, their baseline values, the assumed program impact, and the data sources used.

Table 4.5. Key Variables Used in the Cost-Benefit Analysis

Variable	Baseline Value	Assumed Program Impact	Data Source
Undergraduate enrollment in general courses	585,000 (2017–18, projected using 2015–16 data)	Phased increase, starting with approximately 2% in year 2	AISHE
Postgraduate enrollment in general courses	46,000 (2017–18, projected using 2015–16 data)	Phased increase, starting with approximately 1% in year 2	AISHE
Completion as a percentage of enrollment in general HE courses	45%	Increase of 1%, starting in year 3	AISHE
Wage premium for undergraduate degree holders	INR 285,166 (2011 prices converted to 2017 prices)	Increase of 1% starting in year 4	NSS 68th Round
Wage premium for postgraduate degree holders	INR 837,763 (2011 prices converted to 2017 prices)	Increase of 1% starting in year 4	NSS 68th Round
Worker population ratio of undergraduate degree holders	74%	Increase of approximately 0.7%, starting in year 4	NSS 68th Round
Worker population ratio of postgraduate degree holders	77%	Increase of approximately 0.7%, starting in year 4	NSS 68th Round

27. Table 4.6 summarizes the results of the cost-benefit analysis. The computed EIRR is 14 percent, higher than the assumed socially required rate of return of 12 percent, indicating that the Program is feasible.

Table 4.6. Summary of Cost-Benefit Analysis Results

NPV (INR)	
Estimated economic benefits	17,286,343,532
Estimated economic costs	15,664,588,347
Free cash flow	1,621,755,184
NPV (US\$)	
Estimated economic benefits	265,943,747
Estimated economic costs	240,993,667
Free cash flow	24,950,080
EIRR (%)	14

Risk Analysis

28. Managing program risks effectively requires identifying potential risks factors and quantifying their impact on program success, as best as possible. Monte Carlo simulation techniques have been used to estimate program risk, defining program failure as obtaining a negative NPV of free cash flows generated. Program benefits and costs are disaggregated into five principal components:

- (a) The economic gain from more undergraduate degree completers as well as higher employability and labor market premiums for undergraduate degree holders (ug)
- (b) The economic gain from more postgraduate degree completers as well as higher employability and labor market premiums for postgraduate degree holders (pg)
- (c) The cost of higher enrollment (grads)
- (d) Program-related investment costs (ic)
- (e) Program-related incremental recurring costs (irc)

29. This level of disaggregation necessitates a careful consideration of the correlations between components. The failure of one component can have significant impacts on other components, to which it may be correlated. 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. The rank correlation method of Iman and Conover²⁴ is used to generate the required correlations in the Monte Carlo samples. This method has several advantages:

- (a) It is distribution-free, that is, it can be applied to any input distributions.
- (b) Because 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 modified algorithmically to achieve the desired rank correlation.

30. All five components listed earlier are assumed to follow triangular distributions. The triangular distribution is a simple distribution defined entirely by its minimum value, most likely

²⁴ Iman, R., and W. Conover. 1982. "A Distribution-free Approach to Inducing Rank Correlation among Input Variables." *Communications in Statistics-Simulation and Computation* 11 (3): 311–334. The R package 'cornode' allows for a straightforward implementation of the Iman-Conover procedure.

value (mode), and maximum value. This allows the distributions of the components to be defined entirely based on the results of the cost-benefit analysis, without requiring any sample data.

31. The mode of each component is set to the value obtained in the cost-benefit analysis, and maximum and minimum values are set according to Table 4.7:

Table 4.7. Assumed Distribution of Cost and Benefit Components

Component	Lower-bound % of Mode	Upper-bound % of Mode	Mode
ug	70	110	14,553,114,500
pg	70	110	2,733,229,032
grads	75	115	6,552,513,336
ic	75	115	4,439,822,610
irc	75	115	4,672,252,401

32. The lower and upper bounds of the distributions have been chosen to

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

33. Table 4.8 shows the matrix of rank correlations imposed on these distributions.

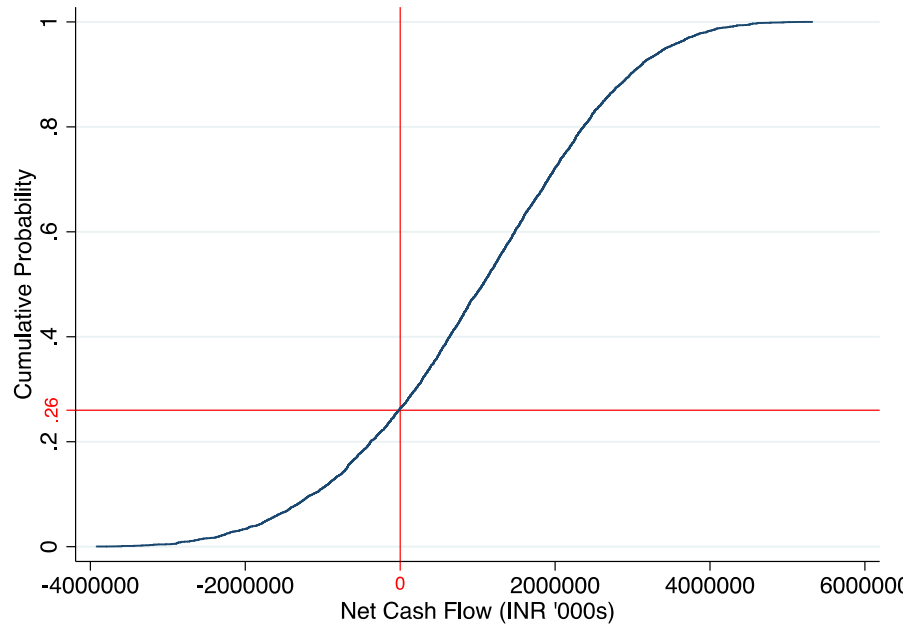
Table 4.8: Assumed Rank Correlations between Project Benefits and Costs

	pg	ug	grads	ic	irc
pg	1.00	0.15	0.0	0.0	0.0
ug	0.15	1.00	0.0	0.0	0.0
grads	0.00	0.00	1.0	0.1	0.2
ic	0.00	0.00	0.1	1.0	0.1
irc	0.00	0.00	0.2	0.1	1.0

Note: ic = investment costs; irc = incremental recurring costs; pg = postgraduate; ug = undergraduate.

34. Based on 5,000 repetitions, simulations yielded a mean present value of net cash flows of INR 992,823,000 and a 95 percent confidence interval of INR 949,476,000 to, INR 1,036,169,000. Figure 4.1 plots the empirical cumulative distribution of the simulated present value of net cash flows. The implied probability of program failure is 26 percent.

Figure 4.1. Empirical CDF of Net Cash Flows from Program Activities



Annex 5: Fiduciary Systems Assessment

1. The Fiduciary System Assessment (FSA) was carried out, in line with the World Bank policy and procedure for PforR financing and covered the HED, RDD, OPHW Corporation at the state level and selected HEIs in the state. The HEIs were selected in a manner that covered 10 colleges (3 government-funded, 5 government-aided, and 2 block grant) and 2 universities across 5 districts of Odisha. Complemented by the World Bank's existing knowledge and understanding of the fiduciary systems gained from state and sector operations, this sample may be considered adequate for purposes of the FSA.
2. The state-level fiduciary systems for the HED, as a constituent department of GoO, are well established and tested under various World Bank operations in Odisha. The process of annual budgeting at the state level by and large follow a top-down approach with the consolidated budgetary requirements sent by respective departments to Finance Department in December and the amount allocated in April. The Reserve Bank of India is the banker to the government while the State Bank of India is the main agency bank. All receipts and expenditures transacted at various treasuries are routed to a single account. At the departmental level, functional computerized integrated FM systems operate, which facilitate fund flows and management of sanctions, allotments, and movement of funds. Centrally mandated classification systems allow for budgeting, accounting and reporting as well as tracking of expenditures at the departmental level. The Odisha Financial Rules, 1979, primarily describe the financial powers of different authorities and the procedure that should be followed by them in the securing and spending of the funds necessary for the discharge of the functions entrusted to them, including processes for tendering of works. In Odisha, Finance (Internal Audit) Department functions under the State Finance Department and is responsible for the audit of various departments, local bodies and government undertakings. The CAG carries out the audit of state governments through the offices of Principal Accountants General/Accountants General as appropriate.
3. Section 12 (1) of the OEA with the provisions contained in the Odisha Local Fund Audit Act, 1985, provides that accounts of the aided educational institutions will be maintained in the prescribed manner and be subject to annual audit. Accordingly, the Odisha Aided Educational Institutions Accounting Procedure Rules, 1985, was framed with a set of guidelines for the maintenance of accounts of the aided education institutions.
4. Budget planning at the level of individual colleges does not show alignment with institutional strategic development plans. Absence of long-term planning at sectoral and institution levels makes the budgeting exercise ad-hoc, low on predictability and lacking in direction. All colleges are funded through three major sources: (a) state budget in the form of grant-in-aid and block grants for salaries of approved teaching and non-teaching staff and specific office contingencies and Infrastructure Development Fund for capital expenditure and direct fund transfer to Central Government/state government agencies such as the Public Works Department (PWD) and Central Public Works Department (CPWD) for the construction of assets for the benefit of HEIs; (b) own-source income in the form of fees and so on collected from students, including for self-learning courses, distance education, and Corporate Social Responsibility grants, donations, and so on; and (c) allocations from UGC under Five-Year Plans, RUSA, NAAC, Member of Parliament/Member of Legislative Assembly Local Area

Development, and so on. Colleges, in general, do not prepare a single consolidated budget covering all fund sources.

5. For Government funds disbursed through the state treasury, the state's budget calendar is followed. For own sources of funds mostly comprising fees from students, the HEIs prepare an annual management budget. This budget covers the academic year (June to May) and is finalized between July and September. In cases of external funding for specific purposes such as UGC, RUSA, Infrastructure Development Fund (through the state budget), the receipt and utilization of such funds are typically not included in the budget. The GBs of affiliated colleges are responsible for preparation of the annual budget for each financial year. The increasing work load arising from the increase in new admissions (FM activities of +2 and +3 are still being carried out centrally) and the shortage of trained accounting staff in adequate numbers working with inadequate IT support result in stretched FM capacity in these institutions.

6. Budgeting at the university level is, however, more structured, consultative, and time bound, even though the forms of budget presentation may vary. The Orissa Universities Accounts Manual 1987 provides procedures for the preparation and approval of annual budgets/estimates as well as the budget heads and classification. The Comptroller of Finance who is appointed by the Chancellor in consultation with the state government from among the Officers of the Orissa Finance Service is responsible for the preparation and presentation of the annual financial estimates (budget). The annual budget is examined by the University Finance Committee before placing the budget before the syndicate for approval before December 15 each year. Thereafter, the syndicate places the budget before the university senate.

7. The state government grant-in-aid/ block grants flow through the state treasury at periodic intervals based on budget estimates. HEIs are required to comply with the necessary formalities to facilitate direct payments to the beneficiaries—employees, suppliers, and so on by the treasury through online treasury systems. Fund flow in respect of central/state schemes is through the HED into scheme-specific bank accounts of the HEIs. The HEIs maintain separate fund bank accounts based on the terms and conditions of specific funds. For own-source revenue, the HEIs maintain separate bank accounts. In case of government colleges, own-source revenue is deposited into a separate personal ledger account in the treasury. Withdrawals/payments are made in accordance with prescribed systems.

8. While separate fund bank accounts and related cash/bank books ensure effective segregation of receipts and payments, the number of bank accounts is high. Multiple bank accounts add to the workload of the accounting staff with manual accounting and staff constraints. Funds from the state budget for college infrastructure development flow directly to the construction agency (government department) with minimal HEI involvement and oversight. Audit reports point to instances of considerable delays in completing works, assets built are sometimes unusable due to fault in planning/execution and huge backlog in submission of utilization certificates to the Government.

9. The Orissa Universities Accounts Manual lays down the policies and procedures for receipts and payments accounting and preparation of annual accounts and audit. Principles of cash-based fund accounting are followed, and the framework for fund accounting in universities is largely adhered to. The accountant prepares bills and vouchers, and after review by the bursar

and approval by the principal (within the financial powers delegated by the Governing Committee), payments are made and recorded in the relevant cash book. The main accounting records are the fund-based cash books. Other records include voucher and bill files and registers. Bank reconciliation is sporadic. The requirement of maintaining a large number of registers is not feasible in a manual environment.

10. Annual receipts and payments accounts are prepared by the Local Fund Audit Organization (LFAO) appointed auditors who also prepare bank reconciliation statements and schedules of investments and outstanding advances. Capacity constraints, including absence of trained accountants amid growing volume of work and lack of computerization, are serious risks in the HEIs. The implementation of online FM system, applicable to government-aided colleges, is an initiative taken by the HED as a step toward mitigating the risk. CAPA is an online web based accounting system and has been developed by the GoO with the objective of standardizing the accounting system and ensuring uniformity in rendering accounts across all government-aided colleges in Odisha. GoO has mandated the use of CAPA from FY 16-17 and organized a series of training programs across the state. Passwords have been provided to the college representatives attending the training sessions and User Manual developed and uploaded on CAPA website.

11. On a parallel basis, the State has made good progress with the roll out of PFMS, an initiative of the Government of India to provide a uniform financial management platform for all Central [and State] plan schemes. To take this process forward, the Finance Department, GoO has established a State Project Management Unit within the Directorate of Treasuries & Inspection, Odisha to coordinate and customize State specific requirements, and monitor and support in the implementation of PFMS. With the completion of integration of PFMS with the State Treasury, the State has decided to configure all State Plan schemes with PFMS.

12. With several such initiatives underway, there is an urgent need for HED to consider the various available options and develop an overall sector financial management computerization strategy and plan. The adoption of a standardized web based financial accounting system will help ensure uniformity in accounting and financial reporting across colleges. Summary reports generated from such a database will strengthen HED's ability to monitor and track the use of the funds.

13. The absence of monitoring and control of fixed assets is a risk for the HEIs as they are exposed to potential loss through misuse and wasteful expenditure. The registrar of universities and the college GBs are responsible for exercising control over its properties and subject them to internal audit. There is a tradition of maintaining quantitative details of movable assets in stock registers; formal Fixed Assets Register for both movable and immovable assets are not maintained. It is, therefore, difficult to derive readily from cash-based systems the accumulated value of fixed assets owned by individual HEIs.

14. In case of aided colleges and universities, there is no internal audit. The internal audit of universities is confined to 'pre-audit' of bills. The audit by the Directorate of Local Fund Audit (DLFA) of aided colleges and universities is an annual 'Statutory' audit as mandated by law. Thus, there is no regular internal audit in the true sense of the term, and the benefits of internal

audit are not accruing to the auditees keeping risk perceptions 'high'. Departmental capacity needs to be strengthened to manage internal audit of the large number of HEIs (including universities and aided colleges).

Procurement Assessment

15. All procurement in Odisha is governed by Odisha General Finance Rules, 1959, updated with latest amendments, delegation of Financial Powers Rules and Instructions/Guidelines/Office Memorandum of Finance Department of the GoO. Rules and guidelines spread across multiple documents and circulars have recently been consolidated to Procurement Manuals, separately for procurement of goods, works, and services, which do provide comprehensive instructions for all steps of the procurement process.

16. The GoO has introduced the use of e-Procurement system, and it is mandatory for all procurements whose estimate is more than INR 0.5 million for increased governance, cost saving, and improved transparency. Procurement under the program is expected to be approximately 60 percent of the total Program cost, consisting of mainly civil works, information and communication technology procurement, and services. The PWD/Tribal Welfare Department Odisha will play a lead role in procurement under the Program so far as civil works is concerned.

17. Operations of Works Department, Odisha are conducted under the overall supervision and control of the Engineer-in-Chief-cum-Secretary. The existing staff managing procurements are by and large adequate to carry out the existing procurement activities, but at the field level, shortage of staff has been reported. Works undertaken for universities by the CPWD are generally completed on time and considered satisfactory with respect to quality and timely completion of works.

18. There is no exclusive Procurement Manual available at the institutes. The institutes, however, do follow the guidelines issued by the Finance Department, the GoO's Office Memorandum No. 4939 dated December 13, 2012. The memorandum outlines some important aspects of procurement like mode of tendering and so on, but there is need for a handbook consolidating important aspects and do's and don'ts of procurement. The HED, Government vide Circular No. HE-FE-(A)-PLAN-0019/2015/23093/HE dated October 15, 2015 has issued certain guidelines for the procurement of laboratory equipment. These guidelines have been circulated to government colleges only, and the same are being followed by these institutes only.

19. Institutions maintain manual record-keeping systems of procurement documents, albeit not in an organized manner. Records related to procurement found in sample files like payment details and so on are kept separately with the accounts section. There is a lack of documentation on the presence of bidders during bid opening in many of the colleges reviewed. In some institutions no technical evaluation report is prepared post the opening of bids. Procurement activities are looked after by the principal with a supporting staff. In some institutions, the head of a department or accounts or establishment clerks are nominated to look after the procurement activities. No formal or any kind of informal training on procurement has been imparted to staff dealing with procurement.

20. Procurement planning is dependent entirely upon the allotment and timing of fund/grants. The planning is initiated only after the receipt of final allocation. Therefore, no annual/multiyear Procurement Plan is prepared by the institutes. In the case of works procurement, the procedure laid down in the PWD Manual is duly followed and tender schedules are prepared according to the standard format. With respect to goods procurement undertaken by the institutes, several shortcomings have been noted, including non-preparation of tender schedules or nonuse of standard bidding documents (SBDs), specifications not mentioned, and clubbing of different groups of items in a single tender without mention of quantity or value.

21. As the works are of small value and in remote locations, in most cases, competition was noted to be limited with only one or two bids being received. However, in few cases where the works were in the vicinity of towns, good competition was observed. For supply of goods tender, the competition is found to be adequate. This may be due to the fact that computers and electronic equipment are available on the Directorate General of Supplies and Disposals (DGS&D) rate contracts. The engineering staff posted in the zones are responsible for contract administration. They send periodical reports to headquarters, which are entered in the progress report. The civil works assigned to the CPWD are noted to be completed within the original completion period. Cases of delays have been reported for the works undertaken by the PWD. Based on the data received from the field officers, progress report of the contracts is prepared and updated periodically. Quality control is the responsibility of field staff, with help from the consultants wherever available.

22. Annual 'Statutory' audits of aided colleges and universities are carried out by the DLFA under the administrative control of the Finance Department. The LFAO draws its authority from the Odisha Local Fund Audit Act 1948 as amended from time to time. The Odisha Local Fund Audit Manual, June 2014, is a comprehensive document and contains (a) relevant acts, rules, and notifications; (b) structure, powers, and functions; (c) detailed instructions for planning and conducting audits and reporting on audit findings and monitoring compliance; and (d) automation of local fund audit.

Fraud and Anticorruption

23. The main channel for receiving complaints at the institution level in Odisha is manual/written complaints or verbal voicing of grievances. Complaints can be put in a complaint/suggestion box, which exists at most institutes. The existing vigilance and anticorruption mechanisms at the Program level include the *Lokayukta* and vigilance department at the state level that enforce the Prevention of Corruption Act, 1988; financial and performance audits by the CAG of India; the RTI Act, 2005; and various departmental-level vigilance and grievance redress systems. In line with its commitment to improve grievance redress, transparency, accountability, and F&C related issues, the GoO has established an online Odisha Grievance Redressal Portal with the URL <http://cmgcodisha.gov.in/>, nicknamed e-Abhiyoga, which is monitored at the highest level at the Chief Minister's Office. Communities and individuals who believe that they are adversely affected by the Program may submit complaints to existing state-level grievance redress mechanisms or to the World Bank's GRS. The nature and frequency of complaints received varies at the institutions, and most were service-related

grievances while some were related to greater transparency and provision of information. RTI has become an effective accountability mechanism.

24. IDP Operations Manuals for colleges and universities have been developed. The Operations Manuals include, among other items, fund flow mechanisms; IDP implementation arrangements and implementation support mechanisms; and FM, procurement, and safeguards (environment and social) guidelines. The framework may be summarized as follows:

Figure 5.1. Framework for IDGs under the OHEPEE

25. **Program fund flow.** For the OHEPEE, there will be two levels of funds flows:
- (a) State-level funds flow from the state budget to the HEIs for salaries, infrastructure development, and so on. This will follow the extant state processes. Under the separate IDP window, funds will be transferred into bank accounts of selected HEIs for financing achievement of agreed PforR results; and
 - (b) Upstream fund flows from the World Bank to the GoO (through the GoI) on achievement of DLIs.
26. Program-specific bank accounts will be opened at the HEI levels for implementing program-level activities. Program activities and expenditures will be tracked using existing accounting systems of the state and HEIs. The upstream funds flow process from the World Bank to the GoO (through the GoI) is linked exclusively to the achievement of agreed results or DLIs. The fund flow protocol defines the timing and conditions required.

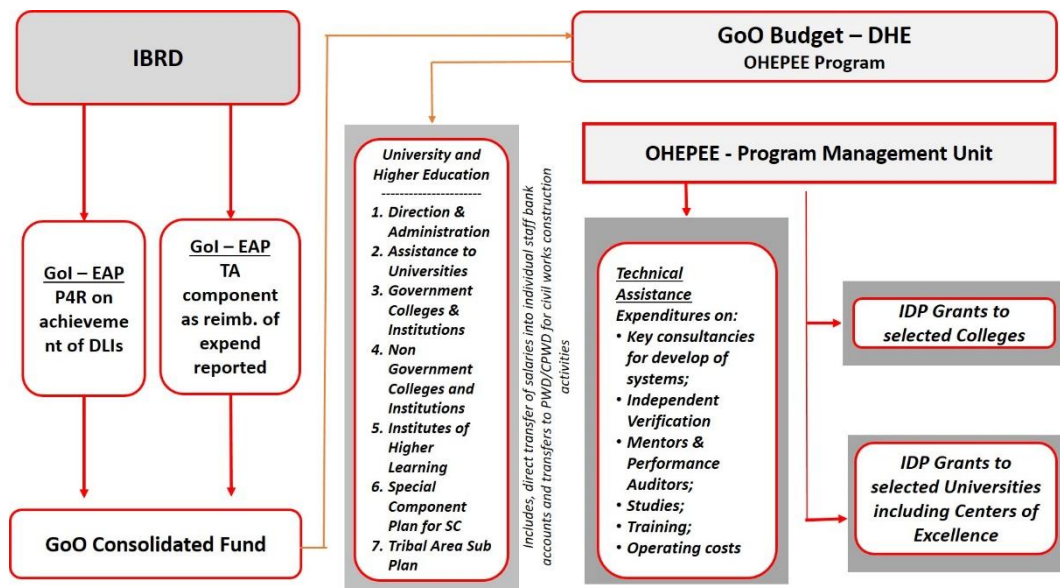


Figure 5.2. Program Fund Flow Arrangement

27. **Financial reporting arrangements.** For the PforR component of the Program, there is no requirement for the reporting of actual expenditures during the life of the Program. The expenditures on the Program (on the identified budget lines), including releases of IDG to selected universities and colleges, will be tracked from the State's Integrated Financial Management System (online computerized FM system). Fiduciary assurance on the end use of the IDGs at the college and university levels will be derived from the periodic financial reporting requirements to the HED and the essential condition of utilization of 60 percent of the earlier grant releases before the release of subsequent grant releases. These requirements have been built into the Operational Manual for IDGs. For the IPF component, the HED will prepare annually IUFs in form and content agreed. The IUFs will form the basis for disbursements from the World Bank Loan.

28. **Auditing arrangements.** For the PforR component of the Program, the annual State Civil Audit report of the CAG through its offices in Odisha will be considered acceptable. These reports are normally submitted in the State Assembly in the month of February for the preceding year. In line with the financial covenant in the legal agreements for the Loan, the annual audit reports will be submitted to the World Bank within 12 months of the close of each year, that is, by March 31 each year. The annual audit reports of colleges and universities receiving IDG grants under the Program will be reviewed and monitored by the HED as part of its due diligence, and this will be an essential condition for release of subsequent grant releases. For the IPF component, the HED will prepare annual financial statements and ensure that these are audited by the CAG Office as per standard TOR agreed between the GoI and CAG Office for externally aided projects. The audit report for the IPF component will be submitted to the World Bank within 9 months of the close of each financial year, that is, by December 31 each year.

29. **Most procurements at the HEI level are expected to be of low value.** Therefore, skill development will focus on ensuring consistency, uniformity, and monitoring of a large number of small-value contracts (expected not to exceed US\$50,000 per contract). Civil works, which is the major procurement for the institutions, is handled by professional executing agencies having adequate procurement experience. The Program is not expected to require large contracts valued at or above OPRC thresholds (US\$50 million for works, US\$30 million for goods, US\$20 million for non-consulting services, and US\$15 million for consultant services).

30. **Key mitigation measures that have been built into the Program design include the following:**

- Submission of annual audit reports will be a mandatory part of the IDG proposal for HEIs seeking funding under the Program; continued timely submission of annual audit reports will be monitored as part of the annual performance evaluations.
- Subsequent annual disbursements to the HEIs will be subject to achieving performance indicators proposed by the institution and utilization of 60 percent of the grant received in the earlier tranche.
- Separate DLI under the PforR component will track, monitor, and disburse, in years 2 and 3 of the Program, program funds for the results in the area of online FM system rollout.

- TA will be provided under the IPF component of the Program to support the rollout of online FM system.
- As part of the PAP, the HED will develop model finance rules for adoption by all colleges and make the same available on the HED website.
- Odisha Higher Education Governance Screening Card will be used to assess to what extent the HEIs are following good governance practices aligned with their institutional goals, and also to allow them to monitor their progress and compare themselves with other institutions. The tool will focus on five specific dimensions, including management, accountability, and autonomy.
- At the state level, the Finance Department will adopt the set of four Procurement Manuals across the state, which are prepared with the support from the World Bank.
- There will be stringent verification protocol for the DLIs by the IVAs, which will be further approved by the HED of the GoO to ensure quality assurance.
- Electronic GRM will be implemented through e-Abhiyoga with strengthened Grievance Redressal Cell at the HED and institutional levels.
- The IVA will assess the extent of compliance with established procurement processes at the institutional level, including (a) procurements consistent with approved plans; (b) procurement decisions based on comparing at least three price quotations; (c) completeness of the documents requesting for quotations, including Notice Inviting Tenders; (d) signatures on comparative statements; and (e) evidence of complete records available in procurement files at the institutions.
- Other procurement-related measures to be agreed include (a) procurement audit to be conducted annually which will include third party quality assurance; (b) procurement and contract management training to be provided; (c) procurement and contract activities to be monitored for correct implementation of procurement and contracts; (d) realistic Procurement Plans to be prepared; and (e) disclosure of award procedure to be adopted.

Annex 6: Summary Environmental and Social Systems Assessment

1. The proposed OHEPEE is a hybrid operation. The lending instruments adopted for the project are twofold: (a) PforR, which covers the bulk of the credit, and (b) IPF, meant to support a TA component. Consequently, environmental assessment and management has been planned separately for the two lending streams.

2. **An Environmental and Social Systems Assessment (ESSA)** was undertaken by the World Bank team as part of the project preparation to gauge the adequacy of systems at the state, university, and college levels towards understanding the environmental and social impacts, risks, benefits, and opportunities associated with the proposed operation. The broad scope of the ESSA included a review of the extent to which the program systems promote environmental and social sustainability; avoid, minimize and/or mitigate adverse impacts on natural habitats and physical cultural resources; protect public and worker safety; manage land acquisition; consider issues related to indigenous peoples/vulnerable groups; and avoid social conflicts. Based on this, the ESSA identified gaps/risks and actions required for enhancing the program systems to enhance opportunities/benefits. The ESSA report has been disclosed on the GoO/HED website on July 24 2017 and through the World Bank's website on June 16, 2017.

Environment Systems Assessment (ESA)

3. **Methodology.** The ESA methodology included an analysis of environment, health and safety (EHS) related information/data of the HE program in Odisha. The assessment was carried out through a review of relevant government policies, legislations, codes, program guidelines, procedures and institutional roles. It included a study of governing systems pertaining to higher education sector at the national and state levels apart from guidelines issued by UGC. An analysis of the extent to which these are consistent with the World Bank's policy and directive on Program-for-Results financing was carried out. The review process also encompassed findings from the site visits, which covered two universities (one each in Mayurbhanj and Sambalpur district) and a representative sample of eighteen colleges located across Mayurbhanj, Koraput, Rayagada, Khurda and Ganjam districts.

4. Consultations were carried out with the HED, staff and students at the universities and colleges, construction agencies such as the Odisha Works Department and relevant regulatory agencies as part of the ESA. Additionally, a workshop was organized at Khariar on January 30, 2017 to interact with the key stakeholders and share the preliminary findings from the study. A second workshop was organized on April 26, 2017 at Bhubaneswar as part of the Appraisal mission to deliberate on the recommendations and actions to be included in the Program Action Plan.

5. **Key ESA findings.** The major findings of the Environment Systems Assessment are summarized below:

(a) **The existing legal and regulatory framework, as relevant to the Program activities, is largely adequate in its coverage of environmental aspects.** The national and state laws/regulations cover aspects such as management of air, water and noise pollution;

construction and demolition wastes; public and worker safety aspects; energy conservation; building safety; protection of critical natural habitats and; protection of archeological monuments/sites. There are also other codes and guidelines defining environmental infrastructure standards and management procedures (for example, standards for sanitation infrastructure in the HEIs and guidelines for handling hazardous materials in the HEIs). However, awareness on these requirements is lacking or quite ineffectual resulting in inconsistent and inadequate application of existing codes and norms.

(b) **There is inconsistent inclusion of relevant EHS aspects in a majority of the campus/building plans/designs.** The impacts resulting from poor design, construction, and more importantly, inadequate maintenance of buildings/ infrastructure pose a risk to achievement of the intended program objectives. The environmental risks include adverse impacts related to design (inadequate natural light and ventilation; insufficient sanitation and water supply facilities; lack of water and energy governance elements; no or little regard for issues related to universal access; deficient electrical and fire safety measures; lack of disaster preparedness from structural perspective); construction (worksite safety management, including risks to staff/students/public; worker health and safety issues; improper disposal of construction waste/debris) and impacts related to the operation of the physical infrastructure (improper maintenance of sanitation facilities; inadequate drainage leading to unhygienic conditions; poor waste disposal including e-waste; deficiencies in safety/emergency procedures; and deficiencies in laboratory management, including safety practices related to handling of chemicals, residues, and spills).

Despite the fact that NAAC accreditation process provides for criteria/weightage on environment aspects, most HEIs have remained oblivious to these. Also, there is limited sensitization and capacity in the construction agencies to design buildings that fully meet safety requirements and are environment-friendly and low in maintenance. A piece-meal approach to infrastructure expansion/addition without a comprehensive over-all plan further affects the asset life/usage.

(c) **The inclusion of EHS aspects in the bidding documents used by construction agencies is not consistent and comprehensive, thereby affecting adherence to requirements during execution of works.** Typically, the following areas are covered for civil works associated with buildings construction/repair: (a) safety measures to be taken during construction such as barricading an excavation, putting-up of warning signage to prevent/discourage trespassing, fire and electrical safety practices, first aid and emergency response; (b) safety measures for officials/workers/labour engaged in a construction site (personal protective equipment); (c) ensuring structural safety during construction (scaffolding); (d) measures to avoid/reduce dust and noise during construction; (e) adherence to labour laws (including labour license, child labour prohibition and basic facilities such as drinking water and sanitation); (f) safe storage and stacking of construction material; (g) management of construction waste/debris; (h) statutory permissions (as and if warranted) and; (i) site clean-up after construction. The inclusion/coverage of these aspects in the bid document is either weak or remains inadequately monitored during the civil works.

(d) **The institutional capacity for Environment, Health and Safety (EHS) management in the HED and in the HEIs is quite limited** as there is no designated position or role with

defined responsibilities on this front. While the building design and construction aspects are largely the responsibilities of the executing agencies like OWD, HED/HEIs need to be more involved in monitoring, reporting and maintaining basic safety and health/hygiene on the campus to improve adherence to norms as specified in UGC and RUSA among other applicable codes at the national/state level. This is necessary to create an improved and healthy learning/teaching environment, which currently remains impaired on account of institutional weakness.

(e) **Monitoring of environmental management aspects in the HEIs is limited.** While the HED has an infrastructure module as part of CIP, the updating of information by HEIs is partial and irregular. Likewise, the monitoring mechanism to review Common Minimum Standard (CMS) on building safety and cleanliness stipulated by HED remains weak.

6. **Key issues/Risks.** The impacts resulting from poor design; construction; and, more importantly, inadequate maintenance of buildings/infrastructure pose a risk to achievement of the intended project/program objectives. The key issues requiring attention include design of buildings/physical infrastructure, sanitation facilities, waste management (including e-waste), drainage, water supply, universal access, fire safety, electrical safety, laboratory management (including safety practices related to handling of chemicals, residues, spills) and disaster preparedness (both structural and non-structural).

7. Therefore, the environmental risks primarily stem from inconsistent adherence to relevant regulations, codes, and guidelines; inadequate monitoring of environmental management aspects; lack of staff capacity on environmental management in construction agencies and the HEIs/HED; and proximity to forest areas (in some cases).

8. **Recommendations/Agreed Actions.** In view of the findings mentioned above, it has been agreed that the following actions will be included in the Program Action Plan to manage the identified issues and risks to the Program:

Integration of the Environmental Audit and Management Plan (EAMP) in the IDPs. EAMP will be included as part of the MoUs (Memorandum of Understanding) with the universities/colleges receiving the IDG and, as part of the IDPs of universities/colleges. Checklist for self-evaluation/audit (to be used by the participating universities/colleges) and guidelines for the preparation of the Environment Management Plan will be included in the Program Implementation Manual (PIM)

a) Once the college or the university has been selected, the IDP provisions and budget should be reviewed to ensure that the activities proposed in the project/EMP are adequately covered and funded. For example, construction of additional toilets to ensure required student: toilet ratio has a budgetary implication and if not covered or adequately covered in the IDP, appropriate remedies should be ensured during fund allotment. The IDP for a college/university that has already covered this properly (or the ones that already meet the requirement), will not be required to make changes.

b) Inclusion of EHS aspects in bidding documents. The bid documents of the construction agencies will be strengthened to include appropriate references to the legal and regulatory requirements on EHS management. Samples for the major work categories (new

construction, major refurbishment works in an existing building and minor repair works), will be prepared prior to initiation of the bidding process. These can be tweaked as per site/work needs by the institutes and the concerned agencies involved in civil works. The EHS aspects proposed to be included in the bid documents will be based on the laws and regulations of GoI/GoO and will be commensurate to the type/nature and scale/magnitude of the work in question.

- c) Capacity building. Capacity building of relevant staff of universities, colleges, HED, and construction agencies will be supported/arranged to ensure awareness of and adherence to the existing legal and regulatory provisions and guidelines/requirements on environmental management applicable to the HEIs.
- d) Monitoring. Institutional and monitoring systems of the HED and HEIs will be strengthened to adequately capture environmental dimensions by appointing/designating an Environment Officer and constitution of an Environment Management Committee within HEIs to facilitate implementation of environment management activities.

9. **List of Activities to be excluded.** The following activities will be excluded from the Program as they are likely to have significant adverse impacts (sensitive, diverse, or unprecedented) on the natural and physical environment:

- a) Construction within all protected/forest areas (including National Parks, Wildlife Sanctuaries, Elephant/Wildlife Corridors, Tiger Reserves, Elephant Reserves, Biosphere Reserves), and, within Eco-Sensitive Zones for which final or draft notifications have been published by the MoEFCC, GoI.
- b) Construction or demolition within 300 meter radius of protected monuments identified by the Archeological Survey of India or Odisha State Archeology Department.
- c) Construction of new buildings of more than 20,000 sq. m. area.
- d) Construction, renovation or dismantling works involving ‘asbestos containing materials’.
- e) Procurement of equipment containing radioactive material or hazardous material.

Social Systems Assessment (SSA)

10. **Key findings of the SSA are as follows:**

- (a) **Assessment of the legal and regulatory framework for the social aspects pertaining to HE points out that both national and state governments had clear focus on inclusion.** Over the period of the last two decades, both central and state governments have placed significant emphasis on excellence along with expansion and equity in HE. Various guidelines of the UGC reflect the efforts taken for ensuring the continued implementation of all these acts and regulations in the HEIs.

The frequent amendments of these regulations again indicate that the GoO is acting promptly to keep the regulations relevant to the emerging situation.

- (b) **The assessment of the HED's existing capacity, colleges, and universities indicates that adequate institutional arrangements exists at the state level for implementing the OHEPEE.** There exists a clear mandate for ensuring social inclusiveness in areas directly applicable to the OHEPEE.
- (c) **Though Odisha has made progress in students' enrollment especially for SC and ST categories, it still need to make efforts to reach up to the national level.** The variations across districts with respect to enrollment and GER provide some interesting insights. Districts with high share of SC and ST population fall in the 'low GER range'. Within districts with high SC and ST population, the GER of SC and ST sub-groups especially ST girls lags behind the enrollment achieved by the entire cohort. After the increase in reservation of seats for SC and ST students, it was noticed that seats in colleges belonging to districts with high SC and ST population got filled up with almost 95 percent capacity utilization. However, colleges in other districts depicted an increase in vacancy of reserved seats.
- (d) **Field findings.** The report distinguishes between access- and quality-related barriers that hinder equitable participation of students from disadvantaged groups. Some of the concerns that prevent students from participating include (i) implicit and explicit information-related barriers (knowledge about the application procedure, courses offered, and future possibilities); (ii) socioeconomic and sociocultural issues (expenses incurred on food by day scholars and hostel students, cost of travel, communication gaps between students and teachers, language issues, parental attitude toward safety concerns especially for girl students, clashing of exams with the harvest season, and so on); (iii) perceived lack of value and relevance in HE; (iv) information asymmetry related to employment opportunities; and (v) the larger social context with respect to migration and security-related risks that are also seen to have an impact on the sustainable participation of tribal boys and girls in HE institutes of the state.
- (e) **Gender differentials:** At the +2 level, while parental attitude and familial concerns such as marriage were cited as the reasons by girls for not pursuing higher education, the need for immediate employment and lack of relevance in HE courses were some of the concerns cited by boys. Regarding usage of hostel facilities, girls cited security concerns and poor sanitation facilities in some districts. In the case of girl students, completion of degree courses can be attributed to a host of external factors such as willingness of parents and relatives, marriage, and other community pressures. However, in the case of boys, social norms do not substantially dictate their completion. Other significant factors include immediate availability of seasonal or temporary jobs, discomfort with the chosen subject, and so on.

11. **The OHEPEE will directly work toward improving the enrollment and employability of students from SC/ST communities in HE in the state.** However, despite the planned interventions, there exist some social risks associated with the program principally due to external factors such as lack of perceived relevance in higher education especially amongst tribal boys, parental attitude and community approval impacting participation of girls, excessive focus on government jobs.

12. **Risk management.** No land acquisition or relocation and rehabilitation activity is anticipated under the OHEPEE. Construction work is expected to be limited to the campus boundaries and will majorly involve upgradation of the existing infrastructure. Activities requiring land acquisition or resettlement and rehabilitation, irrespective of title will be excluded from the program's scope.

13. To mitigate the mentioned issues and associated residual gaps/risks as identified in the ESSA report, the actions proposed include introduction of proctorial system to cater to weak students and outreach programs and strengthening of the existing GRM mechanisms at the HEI level. (Please see annex 8). HEIs will select two or three action steps to be included in their IDPs that will positively impact enrolment, retention and on-time graduation of SC, ST and female students.

Annex 7: Systematic Operations Risk-Rating (SORT)

INDIA: Odisha Higher Education Program for Excellence and Equity

Systematic Operations Risk-Rating Tool (SORT)

Risk Category	Rating (H, S, M, L)
1. Political and Governance	S
2. Macroeconomic	M
3. Sector Strategies and Policies	M
4. Technical Design of Project or Program	S
5. Institutional Capacity for Implementation and Sustainability	S
6. Fiduciary	S
7. Environment and Social	M
8. Stakeholders	M
9. Other	L
OVERALL	S

Note: H = High; S = Substantial; M = Moderate; and L = Low.

Annex 8: Program Action Plan

Action Description	DLI	Covenant	Due Date	Responsible Party	Completion Measurement
Program related					
Consultants for M&E, capacity building, and faculty development recruited to the PMU			May 31, 2017	HED	Contracts signed
HED MIS operational			March 31, 2018	PMU-HED	MIS reports available
Needs assessment for short-term faculty training programs completed			March 31, 2018	PMU-HED	Needs assessment report published on the HED website
FM and procurement					
Executive order issued by the HED mandating the use of online FM system at the all government-aided colleges in Odisha	√		March 31, 2018	HED	Executive order published on the HED website
Model Finance Rules for colleges developed and recommended for adoption			March 31, 2018	HED	Executive order issued recommending Model Finance Rules for adoption and made available on the HED website
Procurement Manual prepared by the GoO adopted by the HED			August 31, 2018	HED	Manual disseminated to all colleges in the state
FM and Procurement training to nominated staff of selected institutions			In first two years of program implementation	PMU/HED	Training on use of manuals to all colleges in the state
Governance and accountability					
Strengthening the vigilance cell in the HED			March 31, 2018	HED	Strengthening the vigilance cell in the HED to handle procurement complaints
Social and environment actions					
MoUs for HEIs should incorporate at least two to three specific actions to improve enrolment, retention and on-time graduation for the SC, ST and female students.			By program effectiveness	PMU	PMU Annual Report
HEIs should ensure functional GRM cells, Equal Opportunity Cells and Women Harassment Redressal Cells with adequate students and faculty representation in selected institutions			Annually after project effectiveness	PMU	PMU Annual report
Inclusion of the Environment Audit and Management Plan as part of the MoUs of selected universities/colleges			By program effectiveness	PMU	Inclusion in MoUs with universities/colleges

Action Description	DLI	Covenant	Due Date	Responsible Party	Completion Measurement
Inclusion of EHS aspects in bidding documents of the construction agencies			Before the first bid (March 31, 2018)	HED	Inclusion in bid documents of the construction agencies
Capacity building of relevant staff of universities, colleges, the HED, and construction agencies to ensure awareness of and adherence to the existing legal and regulatory provisions.			HED – as part of regular training. Construction agencies and Contractors – prior to commencement of the works	HED/PMU	PMU Annual report
Strengthening institutional and monitoring systems of the HED and HEIs to adequately capture environmental dimension through designation of an Environment Officer in the PMU and assigning EHS functions to the Building Management Committee with HEIs			HED – on commencement of the program HEI – from IDP development onwards	HED	Designation of an Environment Officer in the PMU. Issuance of guidelines on EHS aspects to the Building Management Committee

Annex 9: Implementation Support Plan

Strategy and Approach for Implementation Support

1. The World Bank's implementation support strategy has been developed based on the structure and contents of the OHEPEE and its risk profile. It aims to provide continuous support to the HED, PMU, universities, and colleges to implement the Operation efficiently and flexibly and maximize development impact through (a) a stronger focus on results; (b) better implementation and risk management; and (c) greater attention to systems strengthening and capacity building.

2. The implementation support strategy is based on several mechanisms that will enable enhanced implementation assistance to the GoO and timely and effective monitoring of the progress and results of the Operation. These mechanisms comprise (a) supervision and implementation support missions; (b) regular monitoring and technical meetings and field visits by the World Bank team members based in India as well as in the United States; (c) PMU reports based on the OHEPEE's internal monitoring; (d) independent verification of DLIs; (e) stakeholder feedback surveys; and (e) internal audit and FM reporting. The implementation support activities will focus on the educational, operational, and economic content of the OHEPEE, the fiduciary and safeguards requirements, and the mitigation of risks identified in the risk assessment of the Program.

Implementation Support Plan

3. **Implementation support missions.** The World Bank will formally review the implementation of the OHEPEE semiannually. However, more frequent missions and TA may be provided at least in the first year of implementation to help accelerate the implementation and to provide TA and advice to the GoO and PMU on time. These missions will be complemented by continuous communication and follow-up between missions by the World Bank task team.

4. The main semiannual missions will cover, among other things, (a) strategic policy dialogue on major HE sector matters, especially in relation to the two KRAs of the Program; (b) review of the OHEPEE implementation status, including progress on implementation of the TA component, and progress and performance to date with respect to the PDO-level and intermediate results indicators, DLIs, and legal covenants; (c) support for resolving emerging Program implementation issues and for building institutional capacity; and (d) advice on any actions and measures (including risk mitigating measures) required to keep Program implementation on track and performing at expected levels. Before the implementation support missions, the PMU will provide a comprehensive progress report to the World Bank on activities under the Operation, issues encountered and proposed corrective actions for improvement, an updated work program and budget, and copies of studies and evaluations completed since the last mission.

5. **Midterm review.** A midterm review mission will be conducted in 2020. This midterm review will serve as an opportunity for the government and the World Bank to evaluate the efficacy and effectiveness of the design of the Operation and implementation approach and make adjustments as needed. During this mission, based on an assessment of overall Operation

performance, the government and the World Bank will discuss the extent to which the development objectives are being fulfilled and remain achievable within the Operation time frame. Based on the midterm review, the GoO and the World Bank will agree on appropriate actions in relation to the OHEPEE, including restructuring if needed.

6. To ensure high-quality implementation support, the World Bank team will comprise HE specialists and specialists in FM, procurement, and safeguards, with the specific team composition for each mission determined based on implementation support requirements at that time.

7. **Aide Memoires.** Findings and recommendations from the semiannual review missions and midterm review will be recorded in Aide Memoires. The Aide Memoire will include an overview of implementation status, evidence-based assessments of results including DLIs, the implementation status of activities under the Program and the TA components, compliance with legal covenants, risks and risk management measures, and pending issues and actions. The Aide Memoires will provide specific suggestions to the HED and PMU for corrective actions to be taken, by whom, and by when. The Aide Memoire will benefit from the OHEPEE progress reports, based on agreed formats and guidelines, submitted by the PMU on a semiannual basis each year.

8. **FM inputs.** The FM supervision activities will consist of desk reviews of internal and external audit reports, including verification of the adequacy of the resolution of major audit observations and reviewing of annual IUFs, supplemented by dialogue with the PMU staff as needed, especially during the initial years of Project implementation. FM supervision missions will be conducted at least once every six months. Other supervision tools and resources, such as transaction reviews and site visits, will be used to periodically monitor the adequacy of the FM system. In addition to the regular FM implementation support, the World Bank team will provide training, capacity building, and knowledge sharing for FM staff, internal audit staff, and the external audit staff as required.

9. **Procurement inputs.** The World Bank will work with the PMU to strengthen the procurement monitoring and oversight functions and will support training and continuous professional development programs to strengthen skills of staff in the public procurement arena. The World Bank will normally carry out implementation support missions, including review and support on procurement, on a semiannual basis. Mission frequency may be increased or decreased based on the procurement performance of the project.

10. **Safeguards inputs.** The World Bank will monitor compliance the implementation of the environmental and social system strengthening actions (that have been included in the Program Action Plan) during the implementation support missions and provide technical guidance as necessary.

11. The main focus of implementation support and staff skills mix required for implementation support is summarized in the following tables.

Table 9.1. Main Focus of Implementation Support

Time	Focus	Skills Needed	Resource Estimate
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Time	Focus	Skills Needed	Resource Estimate
First 12 months	<ul style="list-style-type: none"> • Operation supervision and coordination • Technical review and support • Fiduciary review and support • Safeguards review and support 	<ul style="list-style-type: none"> • HE • Operations and implementation • FM • Procurement • Environmental safeguards • Social safeguards 	<ul style="list-style-type: none"> • HE Task Team Leader and team member - 24 weeks • Operations and implementation - 8 weeks • FM - 4 weeks • Procurement - 4 weeks • Environmental safeguards - 4 weeks • Social safeguards - 2 weeks
12–60 months	<ul style="list-style-type: none"> • Operation supervision and implementation support • Fiduciary review and support • Safeguards review and support 	<ul style="list-style-type: none"> • HE • Operations and implementation • FM • Procurement • Environmental safeguards • Social safeguards 	<ul style="list-style-type: none"> • HE Task Team Leader and team member - 20 weeks • Operations and implementation - 6 weeks • FM - 4 weeks • Procurement - 4 weeks • Environmental safeguards - 3 weeks • Social safeguards - 2 weeks

Table 9.2. Task Team Skills Mix Requirements for Implementation Support

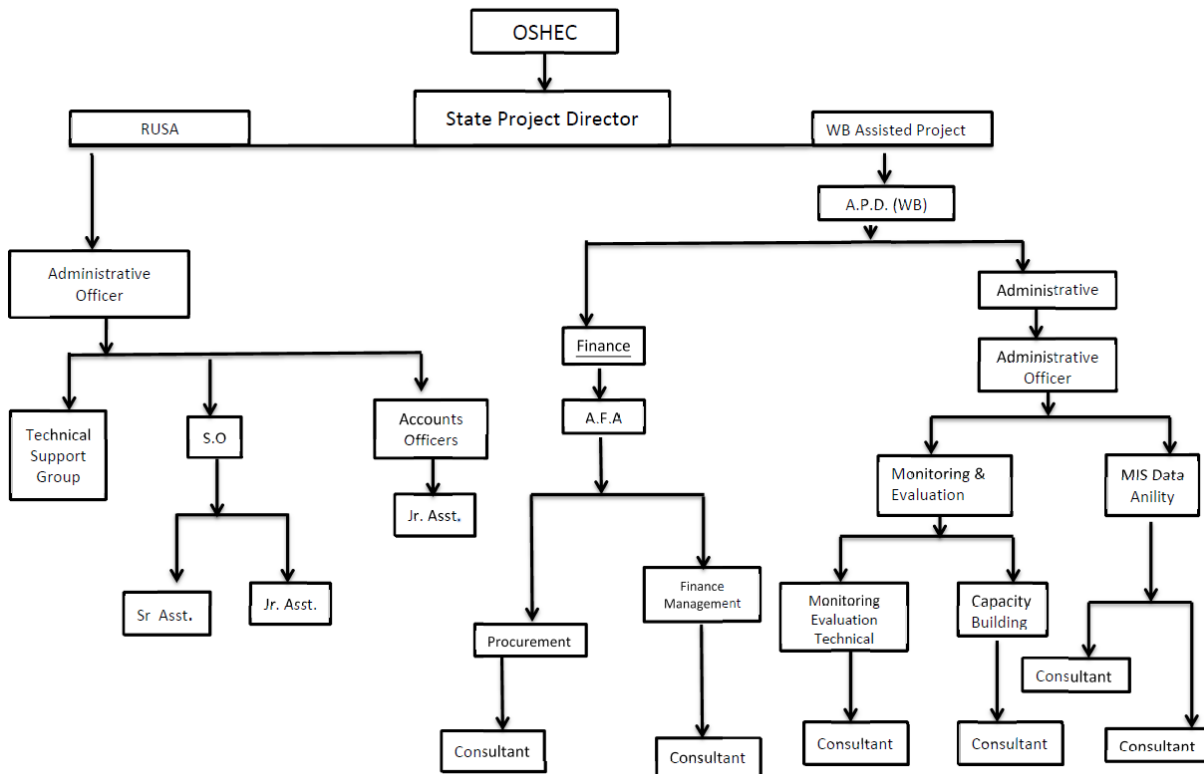
Skills Needed	Number of Staff Weeks
Program management (Task Team Leader and Co-Task Team Leader)	30 weeks annually
HE specialist	8 weeks annually
Operation and M&E	8 weeks annually
FM specialist	4 weeks annually
Procurement specialist	4 weeks annually
Environment specialist	4 weeks annually
Social development specialist	2 weeks annually

Annex 10: Technical Assistance Component

1. The TA component will be an IPF loan for an amount of US\$5 million. The main objective of this component is to assist the implementation of the OHEPEE PforR component through academic, technical, and operational assistance for systems strengthening and capacity building.

2. The main implementing agency for the OHEPEE operation would be the PMU housed in the HED to manage and oversee implementation of the Program as well as the state's RUSA funds. The PD of the PMU will be responsible for both the RUSA scheme in the state and OHEPEE operation supported by the World Bank. A team of professionals (deputation and consultants) with expertise in M&E, capacity development, MIS, procurement, and FM would support the PD in implementation and M&E of activities under the OHEPEE operation (see figure 10.1).

Figure 10.1. Program Organization



3. The activities financed under this component will provide TA for the following activities:

- (a) capacity building for the project management unit (PMU) on areas of FM and procurement with particular focus on building clusters of capacity in remote districts;
- (b) development of partnerships with international HE institutions for faculty and leadership development at all the colleges and universities in Odisha;

- (c) international experts for the governance and management benchmarking exercise;
- (d) study on the learning outcomes, creativity, and critical thinking skills among students, and
- (g) the independent verification of the DLIs.

4. This component will also support activities to strengthen the Program coordination and monitoring capacity of the HED through the PMU; strengthen the capacity of the colleges and universities; support implementation of the fiduciary recommendations for the Program; and support implementation of the recommendations on strengthening the environmental management system and social safeguards for the Program. The main set of institutional development, TA, and capacity-building activities are outlined in Table 10.1. Other activities will be identified as further needs of the HE sector evolve during program implementation.

Table 10.1. Main Institutional Development, TA, and Capacity-building Activities

TA Component	2018	2019	2020	2021	2022
1. Capacity building for the project management unit (PMU)					
1.1 Consultant	x	x	x	x	x
1.2 Resource persons	x	x	x	x	x
1.3 Workshops	x	x	x	x	x
2. Development of partnerships with international HE institutions					
2.1 Consultant	x	x	x	x	x
2.2 Resource persons	x	x	x	x	x
2.3 Workshops	x	x	x	x	x
3. International experts for the governance and management benchmarking exercise					
3.1 Consultant	x	x		x	
3.2 Local resource persons	x	x		x	
3.3 Workshops	x	x		x	
4. Study on understanding of the learning outcomes, creativity, and critical thinking skills among students					
4.1 Consultant	x	x	x	x	
4.2 Workshops	x	x	x	x	
5. Independent verification of the DLIs for the OHEPEE					
5.1 Firm/Agency	x	x	x	x	x

Note: Consultants could be national or international. International consultants will be recruited only if no suitable national consultants are available.

5. The estimated costs of the TA component are given in Table 10.2

Table 10.2. Cost of the TA Component in US\$, millions

1	PMU (state and cluster staff, consultants, operational costs, consultants, M&E, workshops, training, independent verification)	2.5
2	Policy analyses, studies and partnerships (student assessment, governance benchmarking, international partnerships etc.)	2.0
3	Contingencies	0.5
4	Total	5.00

Financial Management

6. FM responsibility will rest with the FM unit at the PMU for the TA component in addition to the PforR component. FM responsibilities include (a) ensuring compliance with all financial covenants in the IPF legal agreements; (b) obtaining funds from the IBRD loan and managing such funds in an efficient, effective, and transparent manner; (c) furnishing financial reports and project audit reports to the World Bank; and (d) carrying out overall management of payments and accounting functions of the TA component and any other requests relating to FM made by the World Bank's task team.

7. IBRD loan proceeds will be used to finance eligible expenditures necessary to meet the development objectives of the TA component with due attention to considerations of economy and governance in accordance with the provisions of the Financing Agreement. If the World Bank determines that the loan has been used to finance ineligible expenditures, the amounts used for such expenditures shall be refunded to the World Bank by the GoO.

8. **FM staffing.** The FM unit will be headed by a qualified and experienced accountant who would preferably have prior experience in FM under the World Bank or donor-financed projects. The accountant will work on a full-time basis and provide guidance and direction to ensure that the FM arrangements are implemented to the satisfaction of the GoO and the World Bank. The accountant in the PMU will be responsible for managing day-to-day FM activities for the TA component, which may include (a) project budgeting, disbursement planning, and forecasting; (b) operation of the Designated Account, including claiming replenishments, disbursement of funds, and making required payments; (c) maintaining books and records for project financial transactions; (d) submission of annual IUFs; (e) preparation of annual project financial statements; and (f) interacting with project internal and external auditors on audit issues and follow-up.

9. **Budgeting.** The PMU will project the required resources to be budgeted for the project on an annual basis under the TA component. These projections will be included in the HED budget, which is then submitted to the Department of Finance for incorporation into the state annual budget. A separate budget code (line item) will be set up under the HED for the TA component (separate from the PforR component) in a manner that will allow for all project-related expenditures to be separately identified, accounted, and reported in the consolidated Monthly Appropriation Report prepared by the Accountant General (AG) of Odisha. Details of expenditures by project activities will be tracked and updated so that information is available both at the AG as well as the departmental level.

10. **Fund flow and disbursement arrangements.** For all TA-related expenditures, the PMU will draw on the state budget on an as-required basis. Disbursements of funds will be report-based and processed as reimbursement of expenditures incurred and reported. No separate designated account will be required. The PMU will submit annual IUFs to the World Bank within 45 days of the end of each financial year. The specific format of IUFs, designed for the TA component in accordance with the guidelines issued by the World Bank, will be agreed during negotiations and will be attached to the Disbursement Letter. It is agreed that all payments related to the TA component will be handled centrally by the PMU at the HED level, and no funds will be transferred to any other agency/unit. Payments for short-term training for

academics and administrators will also be handled by the PMU. In addition, all fund transfers will be between bank accounts and no cash transfers will take place, except for petty cash.

11. **Accounting and financial reporting.** The primary accounting of TA-related expenditures will be through the Odisha Treasury Management System, an online web-based accounting system. The GoO’s Financial Rules and Regulations (FRR) provides the required control framework for procedural transaction control over individual items of expenditure and receipts. The FRR also provides detailed guidance on internal controls including safeguarding of cash, control over inventories, segregation of duties and delegation of authority for approvals, and operating of the bank accounts. It was also agreed that the PMU will maintain a commitment/payments register, tracking all contracts (consultant services, goods and materials, and so on). This will provide the project with information required on pending payments and help track project progress.

12. In the above design of budgeting and accounting, the information on project-related expenditures by project components and activities obtained from the existing monthly financial reports prepared for the AG’s Office will be used for purposes of preparation of annual IUFRRs.

13. **External audit.** The CAG of India through its offices in Odisha will be the statutory auditor for the project. The CAG’s Office will conduct an annual audit of the operations of the Project. The audit report will be submitted to the World Bank within nine months of the close of each financial year. The audit will be conducted by the CAG’s Office according to the TOR issued by the Ministry of Finance (Department of Economic Affairs) through their Office Memo F. No. 17/7/2006-FB-II on March 20, 2009, prescribing the TOR to be adopted for all audits conducted by the CAG on the financial statements of World Bank-assisted projects. The audit report will be submitted within nine months after the end of the financial year. The PMU will be responsible for the timely submission of the annual audited financial statements to the World Bank. The audit report will be monitored in the World Bank’s Audit Reports Compliance System in PRIMA. According to the World Bank’s Access to Information Policy, the audit reports received by the World Bank will be disclosed on the World Bank’s external website for public access.

Table 10.3. Audit Reports

Implementing Agency	Audit Report	Auditor	Date
PMU	Project Annual Financial Statements	CAG	December 31 each year

14. **Financial covenants.** The financial covenants related to this TA component will include (a) audited annual Project financial statements to be submitted to the World Bank no later than nine months of the following financial year and (b) IUFRRs to be submitted to the World Bank no later than 45 days following the end of the reporting quarter.

15. **Disbursement categories.** The IBRD loan will finance 100 percent of eligible expenditures for goods, works, non-consulting services, consulting services, TA, training and workshops, and incremental operating costs of the TA component including taxes.

16. **Incremental operating costs.** Incremental operating costs include the normal expenditures of the Operation, such as reasonable costs of goods and services required for the day-to-day implementation of the Operation, including operating and maintenance cost of vehicles and equipment; office supplies, utilities, consumables (office rental) and maintenance; bank charges; advertising expenses; consultant fees; communications; travel of staff (including per diems and accommodation); and salaries, allowances, and benefits of selected contracted support staff, but excluding salaries and salary top-ups of civil servants of the Government.

Procurement

17. Procurement of goods and services under the TA component of the Operation will be carried out in accordance with World Bank Procurement Regulations dated July 1, 2016 and the provisions stipulated in the Legal Agreement.

18. The PMU will be responsible for managing the procurement requirements and to provide capacity building and staff training where appropriate. To avoid any gaps in implementation capacity, the PMU will need to be established and staffed with an adequately skilled procurement specialist preferably knowledgeable on World Bank-financed operations and one procurement officer. There will be a need for capacity enhancement to effectively carry out the procurement activities under the Project.

19. In the event of a conflict between the World Bank's procurement procedures and any national rules and regulations, the World Bank's procurement procedures will take precedence.

20. According to the requirement of the Procurement Regulations, a Project Procurement Strategy for Development (PPSD) is to be developed by the borrower. The PPSD requires borrowers to consider, among other things, the market situation, the operational context, previous experience, and the risks present—then from this, determine the right procurement approach that will yield the right type of response from the market. By designing the right procurement approach, there is far more likelihood of the right bidders participating, better bids being received, and an overall increased chance of achieving value for money. Therefore, determining the right procurement approach, informed by appropriate analysis, is a critical activity that subsequently affects every following step of the procurement process and onward into Project implementation. Based on the PPSD, the Procurement Plan is to be prepared (under development), which sets out the process to be followed by the borrower during project implementation for the procurement of goods and non-consulting and consulting services financed by the World Bank. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

21. **Systematic Tracking of Exchanges in Procurement (STEP).** An online STEP shall be adopted to prepare and submit the Procurement Plan once the initial plan has been agreed. It is a web-based tool owned by the World Bank which helps in tracking dates of the different stages of a procurement activity that is planned or under implementation. The system establishes a new, easy-to-use, and more efficient way for World Bank teams and the clients to interact, while at the same time providing an audit trail of the process. There will be at least two officials to be nominated by the HED for STEP training by the World Bank.

22. **E-procurement system.** To date, the HED has not adopted e-procurement and the project has a plan to take it forward and adopt e-procurement during the implementation of the project.

23. **Procurement capacity.** The HED through a newly constituted PMU will carry out all procurement at the state level. The Procurement Capacity Assessment concluded that the staff in the HED has limited or no experience in World Bank procurement process. The HED will recruit one consultant who has World Bank procurement experience.

Box 10.1. Summary of PPSD

Brief Description of Activities to be Procured

Works. There is no procurement of works foreseen in this project under the TA component.

Goods, IT systems, and non-consulting services. Goods or non-consulting services shall be procured under this Project using the World Bank’s SBDs for all International Competitive Bidding and national SBDs agreed with (or consistent with) the World Bank for all National Competitive Bidding and Shopping. Small-value procurements may be carried out following Direct Contracting (DC) in accordance with the provisions stipulated in the World Bank Procurement Regulations.

Consultancies. Major consultancy services to be procured shall follow the World Bank Procurement Regulations, and standard documents of the World Bank shall be used. The project includes several consultancy contracts: (a) consultancy for M&E, (b) consultancy for internal and external audit, and (c) selection of an independent agency for DLI verification. The project has to finalize the procurement documents such as Requests for Expression of Interest (REOI), Request for Proposals, and so on for different consultancy services.

Project Components

Component Description	Cost Estimates (US\$)	Duration (Months)	Remarks
Works	Nil	–	–
Goods and equipment			
Consultancies			

Procurement and Contract Approaches

Attribute	Selected Arrangement
Rated criteria	Yes
Best and final offer	Not expected
Negotiations	Not expected

Procurement risk mitigation. As risk mitigation, the HED is in the process of strengthening the procurement section of the PMU by recruiting one consultant as a procurement expert to handle all procurement matters as the prime responsibility. The World Bank team has provided training and support to the HED officials who will be involved in project procurement. The HED officials are planning to undergo training on the New Procurement Framework of the World Bank in the month of June 2017. The GoO through the Department of Finance has prepared four sets of Procurement Manuals and is in process of adoption throughout the state. The manuals include all procurement processes, decision making, and safe upkeep and management of records. The GoO is also having a comprehensive system for handling complaints as a part of the Governance and Accountability Action Plan. While the overall risk rating for the project is Substantial, the residual risk rating after taking proposed mitigation measures remains ‘Substantial’ given the lack of World Bank procurement experience on the part of the HED.

Procurement Methods in the TA Component

Type of Procurement	Method Threshold (US\$, millions)
Goods, IT, and non-consulting services	International Open Procurement >3 National Open Procurement <3 National Request for Quotation <0.1
Consultant firms	CQS <0.3 LCS, FBS - in justified cases QCBS, QBS - in all other packages
Direct selection	With prior agreement based on justification

Review Arrangements

Type of Procurement	Prior-review Threshold (US\$, millions)
Goods and non-consulting services	2

Consultant firms	1
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Note: CQS = Selection Based on Consultants' Qualification; FBS = Selection under a Fixed Budget; LCS = Least-Cost Selection; QBS = Quality-Based Selection; QCBS = Quality- and Cost-Based Selection.

24. **Procurement planning.** For each contract to be financed by the loan, the different procurement methods or consultant selection methods will be used. The need for prequalification, estimated costs, prior-review requirements, and time frame will be reflected in the Procurement Plan to be agreed between the borrower and the World Bank team. The capacity-building plan will also be reflected in the Procurement Plan. The Procurement Plan as agreed will be uploaded in STEP. The Procurement Plan is currently being developed. Based on discussions with the HED, both the World Bank and the Project have evolved and committed to respective time frames for processing the procurement requirements at various stages.

25. **Advance procurement and retroactive financing.** Retroactive financing up to an amount of 20 percent of the credit amount of the IPF component will be available under the project for financing expenditures incurred within 12 months before the date of loan signing to procure eligible activities procured under agreed guidelines.

26. **Procurement training.** Key staff may be sent for training at the Indian Institute of Management, Lucknow/Administrative Staff College of India, Hyderabad/National Institute of Financial Management, Faridabad. The project could also avail of the free MOOC on Professional Diploma in the Public Procurement course delivered through the Charter of Public Procurement Studies in the United Kingdom.

27. **Procurement methods.** Table 10.4 describes various procurement methods to be used for activities financed by the loan. These along with agreed thresholds will be reproduced in the Procurement Plan. The thresholds indicated in table 10.4 apply to the initial 18-month implementation period and are based on the procurement performance of the project; these thresholds may be subsequently modified.

Table 10.4. Thresholds for Procurement Approaches and Methods

Thresholds for Procurement Approaches and Methods	Thresholds (US\$ equivalent)
Open international (goods, IT, and non-consulting services)	>3 million
Open national (goods, IT, and non-consulting services)	>100,000 and up to 3 million
National Request for Quotation (goods/works/non-consulting services)	Up to 100,000
Direct selection	<ul style="list-style-type: none"> • No threshold. • For goods/works/non-consulting services: According to paragraphs 6.8–6.10 of the Procurement Regulations. • For consultants: According to paragraphs 7.13–7.15 of the Procurement Regulations.
Short-list of national consultants	Up to 800,000

28. **Procurement prior-review thresholds.** The World Bank will prior-review (thresholds based on Substantial rating) the following contracts:

- (a) **Goods and IT.** All contracts more than US\$2 million equivalent
- (b) **Non-consulting services.** All contracts more than US\$2 million equivalent
- (c) **Consultants.** All contracts more than US\$1 million equivalent

29. 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. Even for large-value post review cases, the inputs of the World Bank on technical specifications/TOR will be obtained by project. 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. The prior-review thresholds will be mutually reviewed during project implementation and modified based on the risk assessment.

30. In the case of contracts subject to prior review, the implementing agency shall seek the World Bank's no-objection before granting/agreeing to (a) an extension of the stipulated time for performance of a contract that either increases the contract price or has an impact on the planned completion of the project; (b) any substantial modification of the scope of works, goods, non-consulting services, or consulting services and other significant changes to the terms and conditions of the contract; (c) any variation order or amendment (except in cases of extreme urgency) that, singly or combined with all variation orders or amendments previously issued, increase the original contract amount by more than 15 percent; and (d) the proposed termination of the contract.

31. **National procurement procedure conditions.** National competition for the procurement of goods and non-consulting services according to the established thresholds will be conducted in accordance with paragraphs 5.3–5.5 of Section V of the Procurement Regulations and the following provisions:

- (a) Only the model bidding documents agreed with the GoI task force (and as amended for time to time) shall be used for bidding.
- (b) Invitations to 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, among others, giving the website/electronic portal details from which the details of the invitation to bid can be downloaded) at least 30 days before the deadline for the submission of bids.
- (c) No special preferences 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.
- (d) Extension of bid validity shall not be allowed with reference to contracts subject to the World Bank prior review without the prior concurrence of the World Bank (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 the World Bank only in cases of force majeure and circumstances beyond the control of the purchaser/employer).

- (e) Rebidding shall not be carried out with reference to contracts subject to the World Bank prior review without the prior concurrence of the World Bank. The system of rejecting bids outside a predetermined margin or 'bracket' of prices shall not be used in the project.
- (f) Rate contracts entered into by the DGS&D will not be acceptable as a substitute for national competition procedures except for incorporation of right to audit and F&C clauses. The DGS&D contracts and their new versions will be acceptable, however, for any procurement under the Shopping procedures.
- (g) No negotiations are conducted even with the lowest evaluated responsive bidders.

32. **Domestic preference.** The provision of domestic preference will be applied in the evaluation of bids in accordance with Annex VI of the Procurement Regulations.

33. **Record keeping.** All records pertaining to award of tenders, including bid notification, register pertaining to sale and receipt of bids, bid opening minutes, bid evaluation reports and all correspondence pertaining to bid evaluation, communication sent to/with the World Bank in the process, bid securities, and approval of invitation/evaluation of bids will be retained by the implementing agencies.

34. **Anticorruption Measures**

- (a) **Disclosure requirements.** The project shall comply with the disclosure requirements stipulated in the World Bank's Procurement Regulations for IPF Borrowers effective July 1, 2016. Therefore, the following documents shall be disclosed on the project's website: (i) Procurement Plan and all subsequent updates; (ii) Invitations for Bids for goods; (iii) REOI for selection/hiring of consulting services; (iv) short-list of consultants; (v) details of contract awards; (vi) lists of contracts following DC, CQS, or Single-Source Selection on a quarterly basis; and (vii) action-taken reports on the complaints received on a quarterly basis.
- (b) The following details shall be published by the HED through STEP on the World Bank's external website and United Nations Development Business online: (i) General Procurement Notice, (ii) REOI for consulting services estimated to cost more than US\$300,000, and (iii) contract award details of all consulting services, with an 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 RTI Act of India.
- (c) Further, implementing agencies will also publish on their websites any information required under the provisions of 'suo moto' disclosure as specified by the RTI Act.

35. **Oversight and monitoring by the World Bank.** All contracts not covered under prior review by the World Bank will be subject to post review during implementation support missions

and/or special post review missions, including missions by consultants hired by the World Bank. To avoid doubts, the World Bank may conduct, at any time, independent procurement reviews of all the contracts financed under the loan.

36. The high-risk and high-value procurements, if any, will be identified for increased contract management support and indicated in the Procurement Plan. The implementing agency will develop KPIs for such identified contracts, and the KPIs will be monitored during actual execution of contracts. The World Bank team will provide additional due diligence and independent review of the contract performance of such identified procurements.

37. **Complaint handling mechanism.** The GoO has established an online Odisha Grievance Redressal Portal with URL address as <http://cmgcodisha.gov.in/>, known as e-Abhiyoga. There is a departmental vigilance cell in the HED with a nominated officer to take care of complaints related to F&C. The HED needs to strengthen the vigilance cell 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 time frame. All complaints during bidding/award stage as well as complaints during the contract execution along with the analysis and response of the HED shall invariably be submitted to the World Bank for review by the HED annually.

38. **Applicability of Anticorruption Guidelines of the World Bank for the Operation.** The GoO is fully committed to ensuring that the Program's results are not affected by fraud or corruption. Through the Program's legal documents, India is formally committed to the obligations under the Anticorruption Guidelines for PforR operations. In particular, in the context of this Program, the GoO has agreed to report to the World Bank any credible and material allegations of fraud and/or corruption regarding the Program as part of the Program's reporting requirements. The World Bank will inform the recipient about any allegations it receives. India has also agreed to ensure that persons and/or entities debarred or suspended by the World Bank will not be awarded a contract by verifying the same before the award of contracts under the Program during the debarment or suspension period. The World Bank's Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing, dated February 1, 2012 and revised July 10, 2015 will apply to the PforR component of the operation as well as the Bank's "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011, and as of July 1, 2016 will apply to the IPF component of the operation will apply.

39. **Procurement from government-owned entities.** The project does not envisage use of World Bank funds for any goods and services to be sourced from government-owned entities. However, in the event that certain goods, works, and services are required to be sourced from government-owned entities, such procurement shall be subject to meeting the eligibility criterion according to clause 3.23(b) of the Procurement Regulations for IPF Borrowers. Otherwise, such goods, works, and services shall be procured using the HED's own funds.