

Project Administration Manual

Project Number: 50275-002
Loan Numbers: TBD
August 2018

Democratic Socialist Republic of Sri Lanka: Science
and Technology Human Resource Development
Project

ABBREVIATIONS

ADB	–	Asian Development Bank
AGD	–	Auditor General's Department
APFS	–	audited project financial statement
DMF	–	design and monitoring framework
EMP	–	environmental management plan
GAP	–	gender action plan
GRC	–	Grievance Redress Committee
MHECA	–	Ministry of Higher Education and Cultural Affairs
OCB	–	open competitive bidding
PCC	–	project coordination committee
PMU	–	project management unit
PIU	–	project implementation unit
PSC	–	project steering committee
SOE	–	statement of expenditures
SPS	–	Safeguard Policy Statement
STEM	–	science, technology, engineering and mathematics
UGC	–	University Grants Commission

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and following the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing agency, Ministry of Higher Education and Cultural Affairs; and implementing agencies— University of Kelaniya, Rajarata University of Sri Lanka, Sabaragamuwa University of Sri Lanka, and University of Sri Jayewardenepura—are wholly responsible for implementing the ADB-financed project, as agreed jointly between the borrower and ADB, and following the policies and procedures of the government and ADB. ADB staff are responsible for supporting implementation including compliance by the executing and implementing agencies of their obligations and responsibilities for project implementation following ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan and project agreements. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan and project agreements, the provisions of the loan agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President, changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the project administration instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

1. The Science and Technology Human Resource Development Project will support the government to develop applied science and technology faculties in four universities to nurture a new breed of technology-oriented graduates equipped with market-relevant skills and entrepreneurial spirit.¹ It will address lack of financing for technology degree programs, which are high in demand from students and industry. The project will provide innovative technology and industry-relevant education and research facilities, help quality curriculum design and academic staffing aligned with industry demand and international standards, and provide competitive industry and foreign university grant scheme and capacity development opportunities. The project also includes a technical assistance loan component to support the government in preparing a new higher education project proposed for approval in 2021.

2. **Impact and outcome.** The project is aligned with the following impact: an educated and knowledgeable labor force for accelerated economic growth developed.² The project will have the following outcome: access to employment-oriented higher technology education improved.

3. **Output 1: Innovative technology learning and research environment established.** This output will address the main constraint in increasing access to technology programs in higher education by helping the four universities build well-equipped faculty buildings following green building standards and featuring latest pedagogical approaches in higher education, such as project-based learning, peer-learning, and student-centered learning, in flexibly adjustable spaces for different types of research and industry collaborations. Each university will incorporate adequate laboratory facilities to enable students and faculty members to have ample opportunities for practical learning. Selected specialty laboratories with high industry demand will be also installed. All universities will include industry collaboration and innovation centers designed to meet different industry demand (depending on university location, nature of existing and future industry collaboration, etc.).³ Operation of such industry collaboration facilities will be also supported with a competitive grant scheme (output 3). The universities will carry out joint activities such as training and exchange programs, to maximize the utilization of laboratories and industry collaboration and innovation centers as well as peer-learning of good practices. The new faculty facilities will include women-friendly features to empower female students and female academic and non-academic staff in all aspects of academic and social life in the university. An example is a day-care center, which will also help male staff share child care burden of working spouses and promote balanced gender roles. The project will provide adequate sex segregated and special need toilets, and the stairs, ramps and lights are to be made accessible by all and people with special needs. The new buildings will follow green building standards aiming at high energy efficiency. They will also incorporate renewable energy solutions such as photovoltaic solar panels or wind-turbine, which will facilitate education and training of students in renewable energy solutions as well as serve as energy source for building operation. The universities will seek technical support from the Ceylon Electricity Board to ensure that installation and operation are done properly.

¹ The proposed project will support new degree programs in engineering technology, biosystems technology, and information and communication technology under the newly introduced technology faculties in three universities, as well as new degree programs in engineering faculty at Sri Jayewardenepura University.

² Ministry of Higher Education and Cultural Affairs, Government of Sri Lanka. Forthcoming. *Higher Education Development Strategy*. Colombo.

³ Examples include (i) collaborative research and development space for industry use, leveraging university lab facilities and human resources; (ii) pilot plant or laboratory that industry can use university facility and human resource to develop plant facility design, prototype products, and; (iii) test centers; etc. More models will be explored through industry and international university partnerships (output 3).

4. **Output 2: Quality and industry-relevant higher technology education programs implemented.** This output will support development of new strains of technology programs in four universities, differentiated based on industry demand, university strengths, and strategic niches. The universities will complete degree program curricula up to 4th year, incorporating industry inputs, aligned with international standards. Program designs incorporate opportunities for students to interact with industry partners from the 1st year, leading to a 6-month internship and industry problem-based capstone project in the 4th year. Universities will include subjects or modules to instill entrepreneurship in students in the curricula and organize mentorship program linking students and actual entrepreneurs to guide and inspire them (linked to output 4). Delivery of academic programs will also incorporate best practices in technical education (linked to outputs 3 and 4). Bachelor of engineering technology programs will be aligned with Sydney Accord, and bachelor of engineering with Washington Accord, and both will be accredited by the Institution of Engineers, Sri Lanka. Other programs (i.e., bachelor in information and communication technology, and biosystems technology) will seek suitable accreditation of international recognition. This quality assurance mechanism through accreditation will ensure the graduates' qualification is internationally recognized and maintain the quality of program over time. This output will also ensure adequate number of qualified academic staff for the new technology programs. The project will support recruitment and training of academic staff so that at least 90% of the approved cadre positions are filled up and at least 60% of them are Ph.D. holders. Universities will make efforts to recruit and retain qualified female academic staff meeting female staff ratio of 35%.

5. **Output 3: Industry linkages and international collaborations strengthened.** This output will ensure the curricula developed and implemented under output 2 are well informed by industry demand and international best practices, and the physical facilities established under output 1 are fully utilized. Universities will develop joint proposal with industry partners for (i) research and development activities to resolve industry problems, or come up with new products or services; (ii) customized training programs to meet industry demand in technology areas to improve students' employability or existing workers' skill upgrading; and (iii) other innovations in industry-university linkages. Universities can also establish partnerships with renowned foreign universities in areas such as (i) faculty or student exchange programs; (ii) innovative teaching and learning at higher education; and (iii) joint research activities, especially in industry relevant areas. The project will provide grants to support proposals competitively selected by a technical committee established by the Ministry of Higher Education and Cultural Affairs (MHECA) and University Grants Commission (UGC). The project management unit (PMU) and UGC will monitor the financial and technical progress, respectively.

6. **Output 4: Faculty management capacity strengthened.** This output will enhance faculty staff capacity in creating a modern and dynamic academic culture focusing on developing a future-ready workforce. Staff performance management system will be strengthened in (i) continuous improvement in teaching and learning practices of academic staff; and (ii) industry collaboration activities, to encourage staff efforts in these two areas, along with existing performance criteria in student feedback and academic deliverables such as publications. Faculty staff will be trained in innovative teaching and learning, student services, industry collaboration and services, etc., so that employment-oriented technology programs can be effectively supported. Non-academic staff's capacity will be also strengthened through structured professional development programs in selected areas such as library management, student services and counseling, laboratory management, and project management. The output will ensure that the universities have dedicated centers for career guidance that will facilitate industry attachment programs for students and academic staff.

7. **Output 5: New higher education project preparation supported.** This output will support new higher education project development focusing on science, technology and engineering areas, and research and development capacity. The output will support feasibility studies, innovative designs, due diligence assessments, risk mitigation measures, and advance actions for project readiness, especially in procurement, for a project proposed for 2021.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 1: Project Processing Schedule

Indicative Activity	2018									Responsible Party
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Advance contracting actions										PMU/PIU
Retroactive financing actions										PMU/PIU
Establish project implementation arrangements										MHECA
ADB Board approval										ADB
Loan signing										ADB and MOFMM
Government legal opinion provided										Attorney General followed up by PMU
Government budget inclusion (2018 budget included in 2017. 2019 budget to be included by July/August 2018)										MHECA and universities
Loan effectiveness										ADB

ADB = Asian Development Bank, MHECA = Ministry of Higher Education and Cultural Affairs, MOFMM = Ministry of Finance and Mass Media, PIU = project implementation unit, PMU = project management unit.

Source: Asian Development Bank.

B. Overall Project Implementation Plan

8. The project implementation schedule is provided below. A detailed version will be prepared by inception by PMU as part of their annual work planning exercise.

Indicative Activity	2018				2019				2020				2021				2022				2023				2024							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
B. Project Management Activities																																
Establish PMU and PIUs and produce quarterly progress reports (from Q3 2018)																																
Deploy the construction supervision consultant (Q1 2019-Q1 2022)																																
Procurement																																
Consultant selection ^b																																
Environmental Management Plan																																
Gender Action Plan																																
Communication strategy																																
Midterm review																																
Project completion report																																

MOU = Memorandum of Understanding, PIU = project implementation unit, PMU = project management unit.

^a Kelaniya, Rajarata, and Sabaragamuwa universities by Q4 2019, University of Sri Jayewardenepura by Q1 2020

^b Other individual and firm consultants (e.g. external auditor)

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

9. MHECA will be the executing agency, and the four universities will be implementing agencies. According to the Management Services Circular No 01/2016 and its subsequent amendments, the project will establish the project steering committee (PSC), PMU at MHECA, and project implementation units (PIUs) at the universities for project implementation. The UGC will support the project in their capacity for quality assurance, and provide technical inputs for competitive research and innovation grant process. Table 3 summarizes the various roles and responsibilities, and Figure 1 shows an overview of the structure.

Table 3: Summary of Project Implementation Roles and Responsibilities

Organization	Management Roles and Responsibilities
Executing agency - MHECA	Through the PMU, coordinate project implementation activities such as planning, procurement and contract management, financial management, and monitoring and evaluation.
Project steering committee	Provide overall strategic guidance to deliver project outcome and outputs; approve annual workplans; receive quarterly progress reports; resolve any implementation issues; and coordinate with other stakeholders such as MOFMM, National Planning Department, External Resources Department, Department of Project Management and Monitoring, University Grants Commission, and project universities. Other relevant ministries and private sector entities may be invited to the meetings to provide inputs and ensure coordination.
University Grants Commission	Support project implementation by providing (i) guidance for academic program accreditation and (ii) technical inputs to evaluation and selection process for research grant proposals and foreign university partnership proposals.
Implementing agencies <ul style="list-style-type: none"> • Project coordination committee • Project implementation unit 	Universities of Kelaniya, Rajarata, Sabaragamuwa, and Sri Jayewardenepura Each university will establish a PCC for overall monitoring and supervision of project activities at the university level, and provide guidance to the PIU staff and project coordinator (faculty dean or senior faculty member or externally recruited professional). Monitor and supervise construction of the Technology/Engineering Faculty at each university and to design and implement project activities, including procurement of goods and services, within the scope of the project to develop the faculty with assistance of the University Council/Senate and university academic staff.
Democratic Socialist Republic of Sri Lanka	Borrower (represented by MOFMM)
ADB	Financier

ADB = Asian Development Bank, MOFMM = Ministry of Finance and Mass Media, MHECA = Ministry of Higher Education and Cultural Affairs, PCC = project coordination committee, PIU = project implementation unit, PMU = project management unit

Source: Asian Development Bank

10. **Project steering committee.** The PSC will provide overall strategic guidance to the project and approve annual workplans, receive quarterly progress reports, discuss and resolve any implementation issues, and coordinate with other stakeholders, such as the Ministry of Finance and Mass Media, National Planning Department, External Resources Department, other relevant ministries, universities, as well as private sector entities.

11. The PSC will approve the overall project implementation plan, including the consolidated procurement plan. They will also review overall project performance as well as the performance of each university against the outcome and output indicators in the design and monitoring framework (DMF). They will meet quarterly upon receipt of the PMU's quarterly progress reports on physical progress as well as on the progress per the annual workplans of MHECA and the universities.

12. The PSC will be chaired by the secretary of MHECA, and the project director will be the Secretary. The PSC will comprise representatives of the Ministry of National Policies and Economic Affairs (National Planning Department and External Resources Department), four universities (vice chancellors and deans), and UGC (chairperson and advisor of technical studies).

13. **Project management unit.** The PMU will comprise at least a (i) project director; (ii) finance manager; (iii) procurement specialist, (iv) project officers (2 persons) for coordination and monitoring; (v) internal auditor; and (vi) non-technical support staff (1 office assistant, and 1 driver).⁴ Additional staff may be recruited based on MHECA's assessment of workload.

14. Planning and Coordination. MHECA will establish a PMU which will be responsible for coordinating project implementation activities such as planning, procurement, accounting, monitoring, and evaluation. It will prepare a consolidated implementation plan for the overall project as well as annual workplans along with adequate costing for budget and project funds requests, ensuring each university workplans and budget/project funding are well prepared to achieve the intended outputs, and support the universities in any policy and regulatory issues related to project implementation.

15. Procurement and contract management. The PMU will be directly responsible for procuring civil works, goods and services, and other non-procurable inputs, which are beyond the university thresholds per the ceiling delegated by the secretary of MHECA of SLR50 million, which can be adjusted in consultation with the PSC and ADB. It will facilitate the establishment and functioning of the technical evaluation committees, and ministry procurement committee. It will also coordinate the procurement process for contracts that require the cabinet procurement committee's approval. The PMU will be responsible for the (i) design and build contracts for faculty buildings, (ii) construction supervision consultant contract, and (iii) large equipment packages which go over the university threshold.

16. The PMU will also lead contract management, in close coordination with university PIUs. They will monitor the actual physical work, services, and delivery of goods (furniture and equipment) at the university level. University PIU heads will certify documents related to contract management and payments, before PMU makes any contract management/payment actions. The PMU will also establish a goods procurement management system, and ensure that the PIUs maintain good inventory and document management systems.

17. For the civil works for the faculty buildings, in addition to the university PIUs' day to day monitoring of physical progress and environmental management plan (EMP) implementation, the PMU will mobilize a construction supervision consultant to provide quality assurance of the contractor's works. The consultant will provide adequate number of structural engineers and other supporting personnel to cover the four sites.

⁴ The (i) project director, (ii) finance manager, (iii) procurement specialist, and (iv) internal auditor are designated as key personnel of the PMU for purposes of the project.

18. Financial management. The PMU will maintain separate project accounts for ADB funds and the government's counterpart funds, following good practices in financial management per the government's financial regulations, ADB guidelines, and the loan agreements. The Treasury will open two advance accounts at the Central Bank to receive loan proceeds from ADB. Annual project financial statements (consolidating all records from universities), and other financial monitoring reports will be prepared by the finance specialist, certified by the project director, endorsed by MHECA secretary, and submitted to the Auditor General's Department (AGD). An internal auditor in the PMU will support project financial management by providing oversight to the transactions carried out by the universities and PMU. The external audit will be carried out by AGD or an external auditor appointed by AGD. MHECA will provide management letters to accompany the audit report and audited project financial statements (APFS) for submission to ADB within six months from the financial year ending.

19. Monitoring and reporting. The PMU will prepare quarterly progress reports for submission to the PSC and ADB, as well as safeguards monitoring reports. Below actions elaborate the PMU's above functions:

- (i) Facilitate dialogue across MHECA and the participating universities, as well as day-to-day coordination with other relevant agencies.
- (ii) Assist the universities to obtain approval from the Management Service Department to establish and staff the PIUs at the universities.
- (iii) Coordinate with the PIUs on all project implementation activities, including procurement.
- (iv) Follow ADB procurement and disbursement guidelines for goods, works and services, as well as ADB standard bidding documents.
- (v) Prepare bidding documents for design-build and goods contracts, and manage procurement process with assistance of the universities, and call for bids at the ministry and cabinet levels.
- (vi) Prepare terms of reference, and recruit the construction supervision consultant.
- (vii) Implement the procurement plan for design and build construction, large equipment packages, and selection of consultants.
- (viii) Monitor and supervise progress of procurements and implementation plans of the project at the PMU and PIU levels.
- (ix) Obtain government annual budget allocation, including retroactive financing, and keep all financial records for disbursements under the project.
- (x) Provide advances to the PIUs' sub-accounts to implement project activities, including procurement of equipment and furniture, up to university-level financial thresholds and for other non-procurable items.
- (xi) Collect withdrawal applications from PIUs and submit them to ADB for payment.
- (xii) Consolidate project progress reports from the PIUs and construction supervisor; and prepare project progress reports to submit to the PSC, relevant government agencies, and ADB.
- (xiii) Prepare consolidated financial statements for the project, submitted by the project director for the PSC and ADB.
- (xiv) Submit APFS to AGD and ADB.
- (xv) Engage an environmental safeguard officer (consultant) to (a) conduct awareness raising/capacity development training for PIUs and university staff on project related environmental issues and EMP implementation; (b) monitor environmental issues arising from the project activities and EMP implementation in each university, in coordination with the construction supervision consultant, and prepare semi- and annual environmental monitoring reports; and (c) assist PMU

and PIUs in responding to any grievances caused by the project activities in coordination with relevant authorities and ADB.

20. **University project coordination committees.** Each university will establish a project coordination committee (PCC) for overall monitoring and supervision of project activities at the university level, and provide guidance to PIU staff and the project coordinator (faculty dean). The vice chancellor will chair the PCC and PIU head (deputy project director level) will be the PCC secretary. Members of PCC are the deans, department heads, deans of other faculties if required, key PIU staff, register, and bursar of the university. Representatives from the construction supervision consultant, industries, and contractor may be invited for specific topics.

21. **University project implementation units.** Each university will establish a PIU consisting of the (i) PIU head; (ii) engineering assistant; (iii) senior procurement officer; (iv) senior financial officer; and (v) management assistant following the Management Service Circular No. 01/2016 and its subsequent amendments.⁵

22. The faculty dean, as the main counterpart for the project at the university, will be appointed as the project coordinator to guide PIU staff on implementing project activities at the university level. The primary responsibility for PIUs is to monitor and supervise construction of the technology/engineering Faculty at each university, and design and implement project activities to develop the faculty with assistance from the University Council/Senate and academic staff. The PIUs will function under the general direction of the university PCC, project coordinator, and PMU.

23. The PIU at each university will establish a sub-account to the PMU's advance account, and submit financial accounts to PMU for consolidation. AGD will carry out external audit, including all university incurred expenditures under the project. The PIU will keep all expenditure records under retroactive financing for reimbursement under the project after loan effectiveness, and continue exercising sound financial management and reporting during project implementation up to financial closing.

24. The PIU head and procurement officer, under the guidance of the PCC and project coordinator, will develop an overall procurement and implementation plan at the university level during the project period (5 years) and on annual basis. Non-procurable items, such as staff capacity development, and international university partnership, will be also reflected in the workplan and budget plan for PSC endorsement through PMU. The university plans will be consolidated by the PMU.

25. The PIU will procure equipment and furniture as well as services up to the university financial threshold of SLR50 million as delegated by the MHECA secretary. They will facilitate university technical evaluation committees and procurement committee following the National Procurement Agency guidelines. The PIU also needs to follow ADB procurement and disbursement guidelines. The PIU will assume full responsibility and control over the implementation and disbursement of the loan and government funds allocated to the project by ensuring the effective and timely achievement of the project objectives.

26. The PIU will be responsible, under the guidance of PCC and project coordinator, for implementation, monitoring, and evaluation of implementation of project activities and reporting the progress to PMU, UGC, and ADB. It will submit quarterly progress reports every 15 April, 15

⁵ The (i) project coordinator (faculty dean), (ii) PIU head, (iii) procurement specialist, (iv) project engineer, and (vii) project accountant are designated as "key personnel" of the PIU for purposes of the project.

July, 15 October, and 15 January every year to the PMU, university PCC, and ADB on project progress and expenditures for review.

27. The PIU will prepare the terms of reference for the capacity building activities for university management and academic development in consultation with the relevant authority of the university. They will prepare a human resource development plan, including for short-term and long-term trainings of university staff, staff recruitment plan, capacity development plan for staff, and staff performance review mechanisms reflecting the requirements of outputs 2 and 4 target indicators. Long-term training for Ph.D. and masteral programs should follow guidelines on the number of nominees, duration, and ceiling for financing resources approved by the PSC. Selection of nominees will be guided by the university procedures and UGC guidelines.

28. **Competitive grant scheme (output 3).** The project will allocate \$10 million from the loans to provide grants to support proposals from the universities competitively selected by a technical committee established by MHECA and UGC. The selection criteria, process, and reporting of activities will be developed into a grant management manual. The PMU and UGC will monitor the financial and technical progress, respectively. Disbursements and procurement will follow the normal procedures per ADB guidelines, and the procurement plan will be updated accordingly if the proposed activities require procurement of goods and services. No civil works will be supported under this output. In case of foreign university partnerships, it may follow direct contracting using memorandum of understanding or simplified contracts to allow conducive academic/research collaboration. Eligible expenditures under this mechanism may include (i) degree exchange program fees per student, (ii) research project-related expenses, such as research staff salaries, expert fees, additional equipment, materials, and travel, and (iii) honoraria for partner university experts for curriculum development, capacity development activities, etc. Further details will be included in the manual to guide output 3 activities.

B. Key Persons Involved in Implementation

Executing Agency

Ministry of Higher Education and Cultural Affairs J.J. Rathnasiri
Secretary
Telephone: +94 11 2696679; +94 11 5115201
secretary@mohe.gov.lk
#18, Ward Place, Colombo 7, Sri Lanka

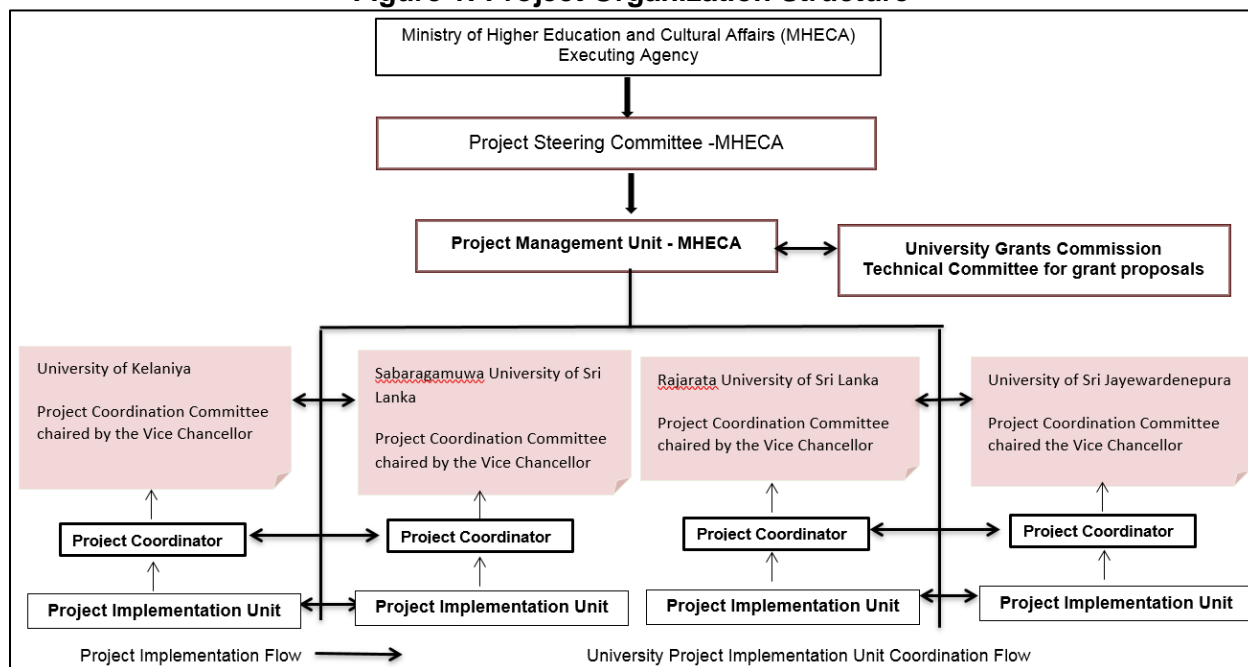
Asian Development Bank

Human and Social Development Division, South Asia Department Sungsup Ra
Director
Telephone: +63 02 632 4629
sungsupra@adb.org

Gi Soon Song
Principal Social Sector Specialist
Telephone: +63 02 632 4233
gssong@adb.org

C. Project Organization Structure

Figure 1: Project Organization Structure



Source: Asian Development Bank.

IV. COSTS AND FINANCING

29. The total project cost estimate is \$165 million. ADB will finance the base costs and related contingencies and financing charges of (i) civil works and goods (solar and wind power systems) for the faculty buildings of the four universities totaling \$83.02 million from its ordinary capital resources (OCR); and (ii) goods (e.g. equipment and furniture), (iii) consulting services and grant scheme under output 3, (iv) training under output 4, and (v) project development facility under output 5, totaling \$61.98 million from its concessional OCR.

30. The government will finance (i) taxes and duties, (ii) PMU office space rent, (iii) PIU recurrent costs,⁶ and (iv) related contingencies totaling \$20 million.

31. The faculty buildings will be constructed on land acquired by the universities. Some recurrent costs will be jointly financed by the government and ADB.

A. Cost Estimates Preparation and Revisions

32. The cost estimates were prepared by the PMU and universities based on current market and historical data, with ADB consultant support. The cost estimates will be updated as necessary during project implementation. MHECA and the universities will ensure that the project activities are carried out within the agreed loan amount and government contribution. If additional costs arise due to unforeseen circumstances, then necessary approvals will be obtained before incurring such expenses.

⁶ These include costs for project management, and operation and maintenance of the faculty buildings.

B. Key Assumptions

33. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: SLR156 = \$1.00 (as of May 2018).
 - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 4: Escalation Rates for Price Contingency Calculation

Item	2018	2019	2020	2021	2022	2023	2024	Average
Foreign rate of price inflation	1.5%	3.0%	4.6%	6.1%	7.8%	9.6%	11.3%	6.3%
Domestic rate of price inflation	2.9%	7.9%	13.2%	18.8%	24.6%	30.7%	37.1%	19.3%

Source: Asian Development Bank estimates.

C. Detailed Cost Estimates by Expenditure Category

Table 5: Detailed Cost Estimates by Expenditure Category
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost
A. Base Cost ^a			
1 Works	15.8	47.3	63.1
2 Goods	20.5	11.2	31.7
3 Consulting services ^b	3.1	0.8	3.4
4 Recurrent cost ^c	-	23.0	23.0
5 Taxes and duties	-	15.0	15.0
Subtotal (A): (1 + 2 + 3 + 4 + 5)	39.4	96.8	136.2
B. Contingencies ^d			
1 Physical	3.0	5.7	8.7
2 Price	2.8	5.2	8.0
Subtotal (B)	5.8	10.9	16.7
C. Financing Charges During Implementation ^e			
1 Interest	11.7	-	11.7
2 Commitment Charges	0.4	-	0.4
Subtotal (C)	12.1	-	12.1
Total (A+B+C)	57.3	107.7	165.0

^a In mid-2018 prices.

^b Includes external auditor costs.

^c Includes executing and implementing agencies' recurrent costs and the project's grant scheme.

^d Physical contingencies computed at 10% of civil works and 5% of goods costs.

^e Includes interest and commitment charges. Interest during construction for ADB's ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed swap rate plus a spread of 0.5% and a maturity premium of 0.2%. For the concessional OCR loan, it is computed at 2%. Commitment charges for ADB's OCR loan is 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank staff estimates.

D. Financing Plan

Table 6: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	145.0	87.9
Ordinary capital resources (regular loan)	83.0	50.3
Ordinary capital resources (concessional loan)	62.0	37.6
Government	20.0	12.1
Total	165.0	100.0

Source: Asian Development Bank estimates.

E. Allocation and Withdrawal of Loan Proceeds

Table 7: Allocation and Withdrawal of Loan Proceeds

Category		Total Amount	ADB Financing Basis
Number	Item	Allocated for ADB Financing (\$)	Percentage of ADB Financing from the Loan Account
Regular OCR			
1	Works and Goods	67,500,000	100 percent of total expenditure claimed*
2	Interest and Commitment Charges	8,800,000	100 percent of amounts due
3	Unallocated	6,720,000	-
	Total	83,020,000	
Concessional OCR			
1	Goods, Consulting Services, Recurrent Costs, and Grant Scheme	50,300,000	100 percent of total expenditure claimed*
2	Interest Charge	3,300,000	100 percent of amounts due
3	Unallocated	8,380,000	-
	Total	61,980,000	

*Exclusive of taxes and duties imposed within the territory of the Borrower.

Source: Asian Development Bank Estimates.

F. Detailed Cost Estimates by Financier

Table 8: Detailed Cost Estimates by Financier / Financing Source
(\$ million)

Item	ADB (OCR)		ADB (COL)		Government		Total Cost (E)
	Amount (A)	% of cost category (A)/(E)	Amount (B)	% of cost category (B)/(E)	Amount (C)	% of cost category (C)/(E)	
A. Base Cost ^a							
1 Works	63.1	100.0%	-	0.0%	-	0.0%	63.1
2 Goods	4.4	13.8%	27.3	86.2%	-	0.0%	31.7
3 Consulting services ^b	-	0.0%	3.4	100.0%	-	0.0%	3.4
4 Recurrent cost ^c	-	0.0%	19.6	85.2%	3.4	14.8%	23.0
5 Taxes and duties	-	0.0%	-	0.0%	15.0	100.0%	15.4
Subtotal (A): (1 + 2 + 3 + 4 + 5)	67.5	49.6%	50.3	36.9%	18.4	13.5%	136.2
B. Contingencies ^d							
1 Physical	3.4	39.6%	4.5	51.6%	0.8	8.8%	8.7
2 Price	3.3	43.9%	3.9	49.4%	0.8	6.7%	8.0
Subtotal (B)	6.7	40.1%	8.4	50.9%	1.6	9.6%	16.7
C. Financing Charges During Implementation ^e							
1 Interest	8.4	71.1%	3.3	28.9%	-	0.0%	11.7
2 Commitment Charges	0.4	100.0%	-	0.0%	-	0.0%	0.4
Subtotal (C)	8.8	72.7%	3.3	27.3%	-	0.0%	12.1
Total (A+B+C)	83.0	50.3%	62.0	37.6%	20.0	12.1%	165.0

^a In mid-2018 prices.

^b Includes external auditor costs.

^c Includes executing and implementing agencies' recurrent costs and the project's grant and project development facility costs.

^d Physical contingencies computed at 10% of civil works and 5% of goods costs.

^e Includes interest and commitment charges. Interest during construction for ADB's ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed swap rate plus a spread of 0.5% and a maturity premium of 0.2%. For the concessional OCR loan, it is computed at 2%.

Commitment charges for ADB's OCR loan is 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank staff estimates.

G. Detailed Cost Estimates by Output

Table 9: Detailed Cost Estimates by Output
(\$ million)

Item	Total		Output 1		Output 2		Output 3		Output 4		Output 5		
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
A. Base Cost ^a													
1 Works	63.1	63.1	100.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
2 Goods	31.7	31.5	99.4%	-	0.0%	-	0.0%	0.2	0.7%	-	0.0%	-	0.0%
3 Consulting services ^b	3.4	2.5	73.5%	0.7	19.5%	0.2	5.6%	-	0.0%	-	0.0%	-	0.0%
4 Recurrent cost ^c	23.0	0.2	0.7%	4.1	17.6%	10.6	45.9%	3.3	14.2%	5.0	21.7%	-	-
5 Taxes and duties	15.0	14.9	100.0%	0.1	0.0%	-	0.0%	-	0.0%	-	0.0%	-	1.0%
Subtotal (A): (1 + 2 + 3 + 4 + 5)	136.2	112.2	82.4%	4.8	3.5%	10.7	7.9%	3.5	2.6%	5.0	3.7%		
B. Contingencies ^d													
1 Physical	8.7	7.2	82.3%	0.3	3.5%	0.7	7.9%	0.2	2.6%	0.3	3.7%	-	-
2 Price	8.0	6.5	82.3%	0.3	3.5%	0.7	7.9%	0.2	2.6%	0.3	3.7%	-	-
Subtotal (B)	16.7	13.7	82.3%	0.6	3.6%	1.4	7.9%	0.4	2.6%	0.6	3.7%		
C. Financing Charges During Implementation ^e													
1 Interest	11.7	9.5	80.1%	0.4	3.8%	1.0	8.9%	0.3	2.9%	0.5	4.3%	-	-
2 Commitment Charges	0.4	0.4	100.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Subtotal (C)	12.1	9.9	81.8%	0.4	3.3%	1.0	8.3%	0.3	2.5%	0.5	4.1%		
Total (A+B+C)	165.0	135.8	82.3%	5.8	3.5%	13.1	7.9%	4.2	2.5%	6.1	3.7%		

^a In mid-2018 prices.

^b Includes external auditor costs.

^c Includes executing and implementing agencies' recurrent costs and the project's grant scheme.

^d Physical contingencies computed at 10% of civil works and 5% of goods costs.

^e Includes interest and commitment charges. Interest during construction for ADB's ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed swap rate plus a spread of 0.5% and a maturity premium of 0.2%. For the concessional OCR loan, it is computed at 2%. Commitment charges for ADB's OCR loan is 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank staff estimates.

H. Detailed Cost Estimates by Implementing Entity

Table 10: Detailed Cost Estimates by Implementing Entity
(\$ million)

Item	Total	University of Kelaniya		Rajarata University of Sri Lanka		Sabaragamuwa University of Sri Lanka		University of Sri Jayewardenepura		Project Management Unit	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. Base Cost ^a											
1 Works	63.1	20.0	31.7%	13.3	21.1%	10.0	15.8%	19.8	31.4%	-	0.0%
2 Goods	31.7	4.0	12.6%	8.9	28.1%	10.7	33.9%	7.8	24.7%	0.2	0.7%
3 Consulting services ^b	3.4	-	0.0%	0.1	2.8%	0.1	1.8%	-	0.0%	3.2	95.5%
4 Recurrent cost ^c	23.0	1.5	6.5%	1.8	7.8%	1.3	5.6%	0.9	3.7%	17.6 ^f	76.4%
5 Taxes and duties	15.0	3.7	24.7%	3.4	23.0%	3.1	20.8%	4.2	28.3%	0.5	3.5%
Subtotal (A): (1+2+3+4+5)	136.2	29.2	21.4%	27.5	20.2%	25.2	18.5%	32.7	24.0%	21.6	15.8%
B. Contingencies ^d											
1 Physical	8.7	2.2	25.3%	2.0	23.4%	2.0	21.9%	2.5	29.2%	-	0.2%
2 Price	8.0	2.0	25.3%	1.9	23.4%	1.7	21.9%	2.3	29.2%	0.1	0.2%
Subtotal (B)	16.7	4.2	25.3%	3.9	23.4%	3.7	21.9%	4.8	29.2%	0.1	0.2%
C. Financing Charges During Implementation ^e											
1 Interest	11.7	2.5	21.6%	2.4	20.4%	2.2	18.7%	2.8	24.2%	1.8	15.1%
2 Commitment Charges	0.4	0.1	21.6%	0.1	20.4%	0.1	18.7%	0.1	24.2%	-	15.1%
Subtotal (C)	12.1	2.6	21.6%	2.5	20.4%	2.3	18.7%	2.9	24.2%	1.8	15.1%
Total (A+B+C)	165.0	36.0	21.8%	33.9	20.6%	31.2	18.9%	40.4	24.5%	23.5	14.2%

^a In mid-2018 prices.

^b Includes external auditor costs.

^c Includes executing and implementing agencies' recurrent costs and the project's grant and project development facility costs.

^d Physical contingencies computed at 10% of civil works and 5% of goods base costs.

^e Includes interest and commitment charges. Interest during construction for ADB's ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed swap rate plus a spread of 0.5% and a maturity premium of 0.2%. For the concessional OCR loan, it is computed at 2%. Commitment charges for ADB's OCR loan is 0.15% per year to be charged on the undisbursed loan amount.

^f \$17.6 million under PMU includes \$10 million for competitive grant scheme (output 3) and \$5 million for new project preparatory work (output 5).

Source: Asian Development Bank staff estimates.

I. Detailed Cost Estimates by Year

Table 11: Detailed Cost Estimates by Year
(\$ million)

Item	Total Cost	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024
A. Base Cost ^a								
1 Works	63.1	-	14.9	4.0	34.3	9.9	-	-
2 Goods	31.7	1.6	6.3	0.2	18.0	5.6	-	-
3 Consulting services ^b	3.4	0.1	1.0	0.9	0.9	0.4	0.1	-
4 Recurrent cost ^c	23.0	-	4.5	4.7	4.4	4.4	4.0	1.0
5 Taxes and duties	15.0	-	3.5	0.8	8.2	2.4	0.1	-
Subtotal (A) : (1 + 2 + 3 + 4 + 5)	136.2	1.7	30.2	10.6	65.8	22.7	4.2	1.0
B. Contingencies ^d								
1 Physical	8.7	-	-	-	-	-	-	8.7
2 Price	8.0	-	-	-	-	-	-	8.0
Subtotal (B)	16.7	-	-	-	-	-	-	16.7
C. Financing Charges During Implementation ^e								
1 Interest	11.7	-	0.4	1.0	1.9	3.1	3.4	1.9
2 Commitment Charges	0.4	0.1	0.1	0.1	0.1	-	-	-
Subtotal (C)	12.1	0.1	0.5	1.1	2.0	3.1	3.4	1.9
Total (A+B+C)	165.0	1.8	30.7	11.7	67.8	25.8	7.6	19.6

^a In mid-2018 prices.

^b Includes external auditor costs.

^c Includes executing and implementing agencies' recurrent costs and the project's grant and project development facility costs.

^d Physical contingencies computed at 10% of civil works and 5% of goods costs.

^e Includes interest and commitment charges. Interest during construction for ADB's ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed swap rate plus a spread of 0.5% and a maturity premium of 0.1%. For the concessional OCR loan, it is computed at 2%. Commitment charges for ADB's OCR loan is 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

J. Contract and Disbursement S-Curves

Figure 2: Contract and Disbursement S-Curves - Overall ADB Financing

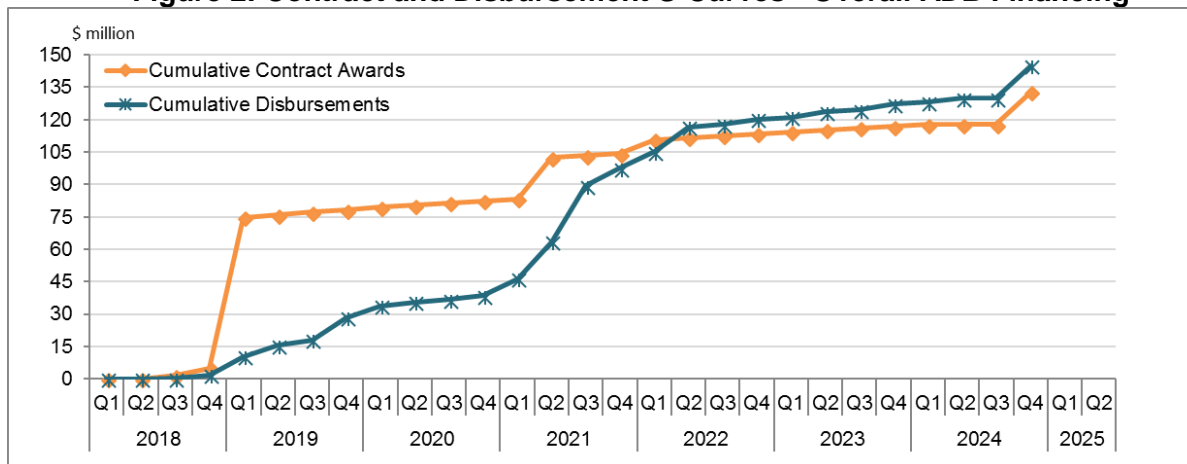


Figure 3: Contract and Disbursement S-Curves – Ordinary Capital Resources (Regular)

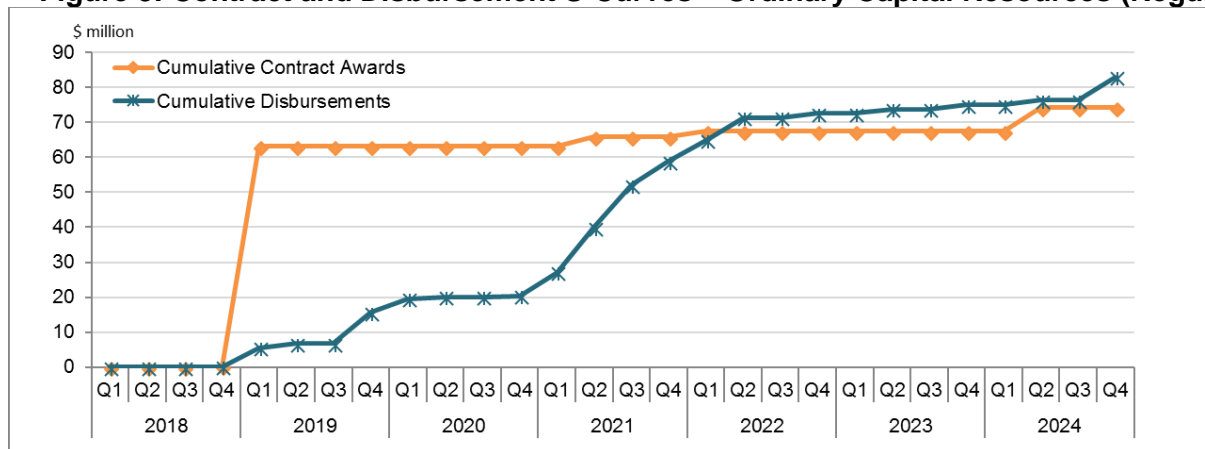


Figure 4: Contract and Disbursement S-Curves – Ordinary Capital Resources (Concessional)

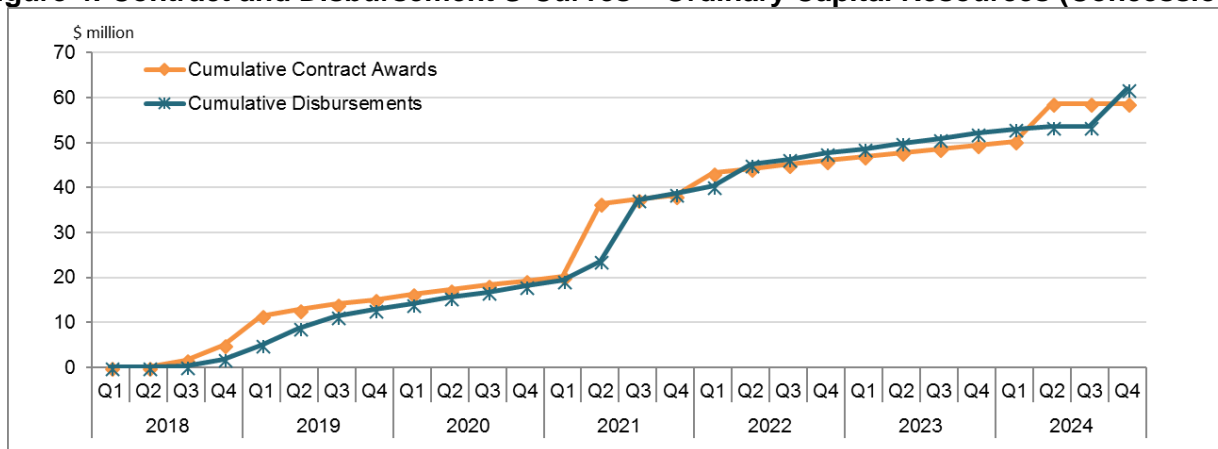


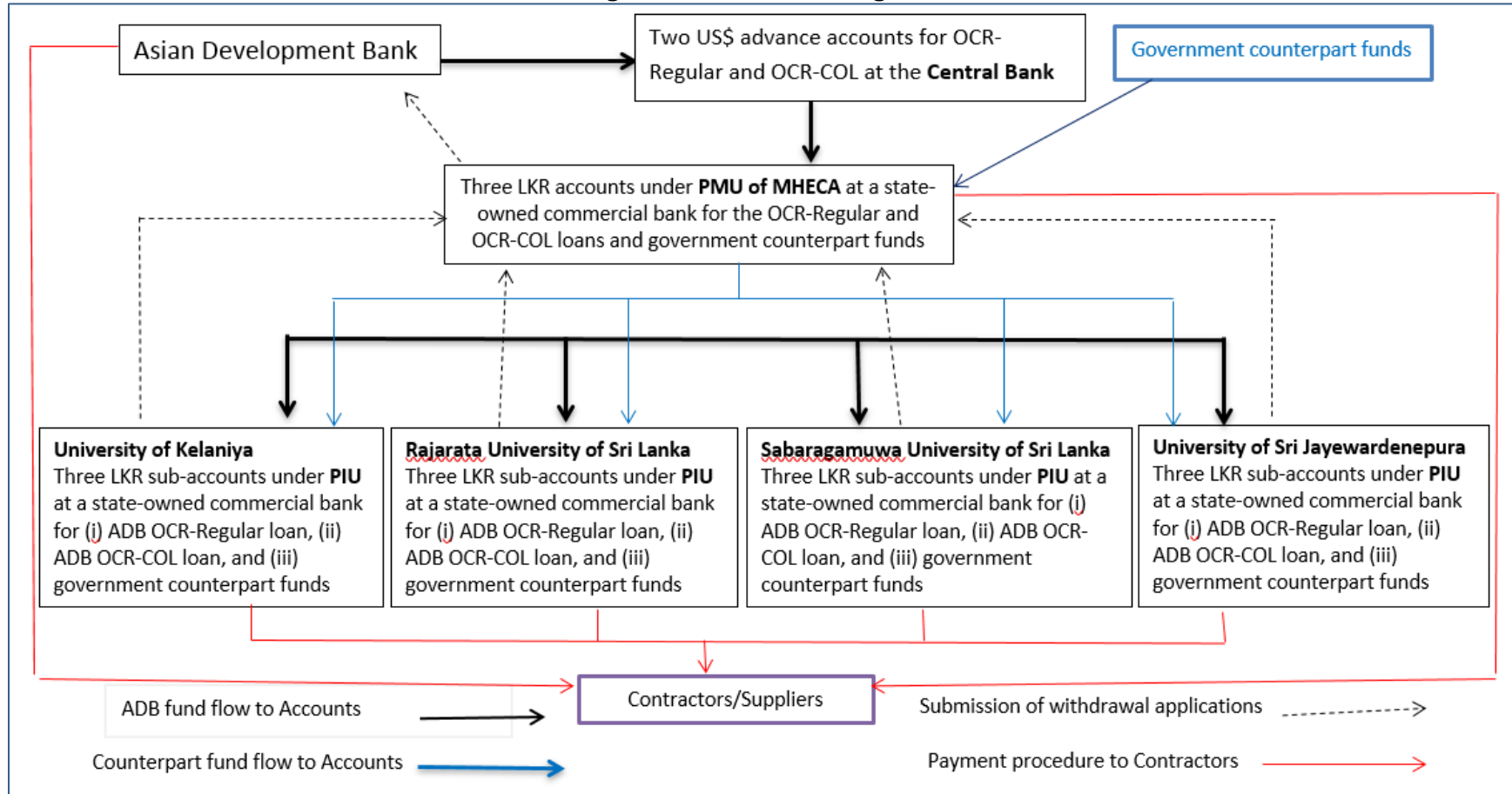
Table 12: Quarterly Contract Award and Disbursement Projections
(\$ million)

Year	Contract Awards					Disbursements				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
Ordinary Capital Resources (Regular and Concessional)										
2018	0.00	0.00	1.61	3.44	5.04	0.00	0.00	0.20	1.70	1.90
2019	69.61	1.34	1.35	0.87	73.17	8.60	5.00	2.60	10.30	26.50
2020	1.30	0.98	1.02	0.90	4.20	5.30	1.90	1.20	1.70	10.10
2021	0.99	18.97	0.97	0.85	21.78	7.90	17.20	25.80	8.00	58.90
2022	6.58	0.93	0.97	0.84	9.32	7.80	11.40	1.10	2.50	22.80
2023	0.92	0.82	0.91	0.78	3.43	1.00	2.50	0.90	2.50	6.90
2024	0.88	15.96	0.00	0.00	15.96	0.90	1.90	0.00	15.10	17.90
Total	132.90					145.00				
Ordinary Capital Resources (Regular)										
2018	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.10	0.10
2019	63.10	0.00	0.00	0.00	63.10	5.40	1.24	0.00	8.84	15.48
2020	0.00	0.00	0.00	0.00	0.00	4.00	0.46	0.00	0.35	4.81
2021	0.00	2.70	0.00	0.00	2.70	6.70	12.84	12.20	6.64	38.38
2022	1.60	0.00	0.00	0.00	1.60	6.10	6.54	0.00	1.14	13.78
2023	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.00	1.21	2.42
2024	0.00	6.72	0.00	0.00	6.72	0.00	1.35	0.00	6.70	8.05
Total	74.22					83.02				
Ordinary Capital Resources (Concessional)										
2018	0.00	0.00	1.61	3.34	4.94	0.00	0.00	0.20	1.60	1.80
2019	6.51	1.34	1.35	0.87	10.07	3.20	3.76	2.60	1.46	11.02
2020	1.30	0.98	1.02	0.90	4.20	1.30	1.44	1.20	1.35	5.29
2021	0.99	16.27	0.97	0.85	19.08	1.20	4.36	13.60	1.36	20.52
2022	4.98	0.93	0.97	0.84	7.72	1.70	4.86	1.10	1.36	9.02
2023	0.92	0.82	0.91	0.78	3.43	1.00	1.29	0.90	1.29	4.48
2024	0.88	8.36	0.00	0.00	9.24	0.90	0.55	0.00	8.40	9.85
Total	58.68					61.98				

Source: Asian Development Bank estimates.

K. Fund Flow Diagram

Figure 5: Fund Flow Diagram



ADB = Asian Development Bank, COL = concessional loan, LKR = Sri Lankan rupee, MHECA = Ministry of Higher Education and Cultural Affairs, OCR = ordinary capital resources, PIU = project implementation unit, PMU = project management unit
 Source: Asian Development Bank.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

34. The financial management assessment was completed in May 2018 following ADB's *Guidelines for the Financial Management and Analysis of Projects*, and *Financial Due Diligence: A Methodology Note*. The financial management assessment considered the capacity of MHECA and the four universities as executing and implementing agencies, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management risks identified are (i) country-specific inherent risks such as insufficient counterpart funding for projects implemented jointly among the central government and public universities, and suboptimal capacity of government/university staff in designing and implementing project management systems in line with government's rules and regulations; and (ii) control risks, such as the capacity gaps of senior finance staff at MHECA and the universities on reporting and disbursement procedures following ADB guidelines, weak fixed assets control, internal checks, internal and external audits, and information systems. The overall pre-mitigation financial management risk is substantial.

Table 13. Financial Management Risk Assessment

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
Inherent Risks				
1. Country Specific				
(i) Insufficient stakeholder input and consultation in policy preparation, especially at provincial and local levels	Low	Likely	Moderate	The project does not have provincial/local level involvement. In the case of remote possibility of such intervention, the government/MHECA policy makers need to consult relevant parties for their inputs.
(ii) Inadequate audit resulting from lack of resources and competencies with AGD.	High	Unlikely	Substantial	Possibility of project-specific external auditing arrangements should be explored with AGD, with option to hire private firms of auditors, under the approval and oversight of AGD at least for the four university PIUs.
(iii) Insufficient counterpart funding for projects implemented jointly with central government under which all public universities function. (Any devolved subjects being implemented through provincial and local government IAs are unlikely to have impact on the projects under consideration herein)	High	Likely	High	Firm commitments for counterpart funds should be sought, supported by adequate budgetary allocations.
(iv) Unavailability of a Parliament sanctioned procurement law	Low	Likely	Moderate	All the public entities should mandatorily comply with

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
(v) Suboptimal capacity of project implementation staff of borrower on designing and implementing project-wise integrity systems.	High	Likely	High	<p>prevailing National Procurement Guidelines, which provide a set of comprehensive and robust instructions. (In the absence of Parliament sanctioned procurement law, courts in Sri Lanka have repeatedly ruled that the Procurement Guidelines issued by the National Procurement Agency have the force and effect in law.)</p> <p>A comprehensive procedure manual should be developed with in-built integrity systems. The project being implemented by public entities in Sri Lanka will need to operate within regulatory and procedural framework of the government. Hence, existing systems and procedures would have to be considered in designing a manual, after strengthening any weak areas of concern and mitigating identified risks.</p>
(vi) Insufficient capacity, especially in provincial and local authorities, in financial management of large-scale infrastructure projects.	Low	Unlikely	Low	Any material effect will not result from this risk as the implementation responsibilities would rest with central government agencies.
(vii) Suboptimal accountability	High	Unlikely	Substantial	Accountability concerns should be fully addressed prior to project implementation. Strengthening of Internal Audit function, regular performance review by project team, and making arrangements with AGD for project specific annual external audit would effectively address accountability issues.
2. Entity-specific. The roles of the entities (EA/IA) as a whole, PMU, organization structure of PIUs, and the construction supervision consultants are yet to be clearly determined and delineated at the time of assessment.	Low	Likely	Moderate	A clear organizational structure will need to be prepared for the PMU and PIUs. Specific terms of reference will need to be developed for PMU staff and the construction supervision consultant.
Overall Inherent Risk			Moderate	
Control Risks				

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
<p>1. Implementing Entity. The implementing entity for the project (MHECA) is expected to play a dual role as both EA and IA in addition to the beneficiary IAs. MHECA will also be directly involved in the procurements valued above a certain threshold per the guidelines in force. The capacity gaps of senior finance staff at EA/IAs in relation to ADB guidelines, reporting and disbursement procedures may affect the accountability and reporting aspects.</p>	High	Likely	High	Capacity building training program/workshops aimed at finance (as well as other functional) staff should be organized initially at the beginning of the project and refresher/update programs thereafter.
<p>2. Funds flow. Due to budgetary/ financial constraints of the central government, release of funds for planned capital expenditure has been curtailed in the recent past. This trend, if continued, may affect counterpart funding responsibilities assumed under the proposed project. It also could have a significant impact in providing the ADB share of project expenditure in advance (or based on reimbursement) affecting the progress of project.</p>	High	Unlikely	Moderate	Government counterpart funding will be limited to taxes and duties and recurrent expenditures. ADB's direct payment procedure will be adopted to pay ADB's share of project costs for payments in large amounts. Advance account will be established at PMU, and sub-accounts will be established at PIUs to facilitate project activities. A covenant will be included in the loan agreement requiring the government to provide adequate and timely counterpart funding.
<p>3. Staffing. While adequate book-keeping/accounting skills are available at MHECA, there is routine staff turnover owing to the government's regular, periodic staff transfer policy. The replacements provided may not have the same level of skills/aptitude in general and no entity-specific experience, resulting in protracted learning curves. There is no procedure in place for regular rotation of staff on different duties at both the MHECA and university levels, and there is no performance-based rewarding system and penalties for non-performance. Accounting staff have limited knowledge of ADB requirements. The impact of these shortcomings would be mostly on any staff seconded to the project from the EA/IAs.</p>	Low	Likely	Moderate	Rotation of staff to be carried out to the extent feasible and periodic transfer of seconded finance staff between the project and the respective EA/IA finance unit is recommended as it will create a pool of staff conversant with project operations, providing flexibility in any contingencies. Staff to be provided specific training in ADB requirements. Staff who will be hired externally to be remunerated at market rates to mitigate turnover (as the prevailing government-recommended rates seem uncompetitive particularly for the skilled and experienced staff).

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
<p>4. Accounting policies and procedures. At the ministry (MHECA) level, a partial accrual accounting system is implemented (with no depreciation accounting for fixed assets).</p>	Low	Likely	Moderate	Accrual-based accounting policy and system should be implemented across the EA and all PIUs. Technical support will be needed by MHECA to prepare and disseminate the accounting manual among all relevant staff (EA/IA and project), including close follow up for initial implementation.
<p>5. Fixed Assets Control. Control exercised by the agencies, particularly the four IAs was observed to be weak with below shortcomings:</p> <ul style="list-style-type: none"> (i) Master FA register (maintained centrally by Accounting and Finance Division) not reconciled with inventory records maintained at asset user locations. (ii) Absence of uniform coding system for the records and labeling of respective asset using the same code. (iii) Annual Board of Survey (physical verification) is rendered ineffective due to inability to identify asset items, cross referenced to FA register and departmental inventory records. (iv) Lack of effective procedures to record transfer of assets among internal/external divisions or departments. (v) FA control software system not integrated with main accounting system, requiring manual intervention and reconciliation. 	High	Likely	High	<p>Regular quantity-wise reconciliation of Master FA register (computerised) with divisional/sectional inventories should be carried out, especially before the annual physical verification.</p> <p>All asset items should be labelled with a unique, one-time code which should be indicated in the FA register and all other assets records.</p>
<p>6. Internal Check. Due to distribution of work among the finance staff by the EA and all IAs, grouping the work based on volume instead of function, the control exercisable through internal check has been affected, rendering segregation of duties ineffective (e.g. distributing work among payroll staff</p>	High	Likely	High	At the project level, the scope available for internal check can be further limited due to few staff directly assigned to the PMU/PIUs. To mitigate the associated risks, the level of internal audit on project operations should be ramped up. Further, possibility of using

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
by allocating a certain number of names, instead of functional distribution—data entry, validation/ processing, payment)				EA/IA staff for certain critical functions, such as payments, should be considered while exercising closer supervision by the executive finance staff.
7. Risk Management of Physical Assets. The EA/IAs currently insure only cash in safe/cash in transit and vehicles as a matter of government policy.	Low	Likely	Moderate	Insurance cover for project assets, including work sites, to the extent not covered by contractors, should be considered at implementation.
8. Internal Audit	<i>Medium</i>	<i>Likely</i>	<i>Substantial</i>	
(i) MHECA and the four universities have internal audit units with independent reporting to management (vice chancellors at universities) and audit committees.	Medium	Likely	Substantial	The reporting should be to members independent of management of university operations.
(ii) Only MHECA, and University of Sri Jayewardenepura and University of Kelaniya have followed the Audit and Management Circulars issued by the Department of Management Audit of MOFMM in preparing the annual audit plans.	Medium	Likely	Substantial	The annual audit plans of all universities need to be streamlined and prepared based on Audit and Management Circulars issued by the Department of Management Audit with direction and monitoring by MHECA and UGC.
(iii) The internal audit units of MHECA and two of the four universities do not have adequate experienced and qualified staff to perform internal audit functions effectively.	High	Likely	High	At least the approved cadres for each internal audit unit need to recruit staff with qualifications and experience commensurate with the internal audit functions, especially at Rajarata University of Sri Lanka and Sabaragamuwa University of Sri Lanka. As a stop gap measure, a dedicated internal auditor will be hired at the PMU to support all PIUs in project implementation activities in coordination with internal auditors at MHECA and the universities.
(iv) No structured training to enhance capabilities of existing staff.	Medium	Likely	Moderate	Existing staff strengthened with regular and systematic training in internal audit.
9. External Audit	<i>Medium</i>	<i>Likely</i>	<i>Substantial</i>	
(i) AGD carries out annual audits of MHECA and the four universities with government audit units established at each location.	Low	Unlikely	Low	Documentation of existing process

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
(ii) There are only audit observations made in relation to the Appropriation Account of MHECA.	Low	Unlikely	Low	Documentation of existing process
(iii) AGD issued modified audit opinions on all four universities.	High	Likely	High	Continuing audit observations and those resulting in qualified opinion need to be addressed in a timely manner.
(iv) The audit report for 2015 is yet to be issued for MHECA, and audit process at the universities has taken time excess of that stipulated.	High	Likely	High	The timeliness in audit of MHECA Appropriation Account and financial statements of universities need to be ensured if the external audit is to be effective.
(v) Project financial reports are subject to audit at MHECA but not at universities.	High	Likely	High	A consensus needs to be reached on project expenditure statements being subject to audit by AGD or an independent external auditor at the universities in agreeing terms on the loans.
10. Reporting and Monitoring	<i>Medium</i>	<i>Likely</i>	<i>Substantial</i>	
(i) Annual appropriation accounts prepared at MHECA using CIGAS. Comprehensive financial statements prepared in accordance with the Sri Lanka Public Sector Accounting Standards at the universities from trial balances extracted from a common customized software package requiring manual intervention and use of Excel spread sheets for preparing financial statements.	Medium	Likely	Substantial	Both CIGAS and the customized software used by the universities need modification/updates to configurations to enable generation of financial reports without manual intervention to ensure integrity and accuracy.
(ii) Financial information is not linked to physical progress and the university financial statements do not include project expenditure. Project financial reports are independently prepared for purposes of monitoring.	Medium	Likely	Substantial	The customised software packages at the universities also need to be modified to facilitate financial and physical progress reporting and to include project financial information that can be integrated with the universities'.
11. Information Systems	<i>High</i>	<i>Likely</i>	<i>High</i>	
(i) The computerized software used by MHECA and the universities are standalone systems. Integration at MHECA is through upload of peripheral information to CIGAS, whereas at the	High	Likely	High	MHECA is expected to migrate to an advanced customised software (Integrated Treasury Management Information System). The universities, on a priority basis, need to either

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures or Risk Management Plan
universities the payroll, fixed assets management and inventory are integrated to the general ledger by manual intervention.				centrally at MHECA/UGC level or at university level introduce a new accounting software developed especially for the current and future information needs.
(ii) The staff, although trained to use the systems for required purpose, do not exercise standard access and password controls. Back-up procedures are informal and do not meet back-up requirements of offsite storage and periodic testing. Weak password control and backup procedures impair data integrity, confidentiality and availability.	High	Likely	High	Staff should be trained on access and password controls. Backup procedures formalised addressing data retrieval for continuity of operations in case of disaster. A common information technology policy should be formalised covering MHECA, UGC and the Universities.
(iii) The accounting, fixed assets control and payroll systems (Equal - PackSoft) being used at the universities, except for University of Sri Jayewardenepura have been supplied and serviced by a software developer with no assurance over the continuity of software maintenance, upgrading and technical support. The systems are also not highly customizable, needing considerable manual interventions. These shortcomings have placed the IAs at high information management risks with no ready-made solutions in the event of any contingencies/ breakdowns.	High	Likely	High	In the event of sourcing any accounting systems software for the project, the risks identified with the current system should be taken into consideration and mitigated.
Overall Control Risk			Substantial	
Overall (Combined) Risk			Substantial	

ADB = Asian Development Bank, AGD = Auditor General's Department, CIGAS = Computerized Integrated Government Accounting System, EA = executing agency, FA = fixed assets, IA = implementing agency, MHECA = Ministry of Higher Education and Cultural Affairs, MOFMM = Ministry of Finance and Mass Media, PIU = project implementation unit, PMU = project management unit, UGC = University Grants Commission.

35. Potential risks to maintaining the advance fund and statement of expenditures (SOE) procedures by MHECA and the universities are assessed as low to moderate. With the implementation arrangements involving the PMU and PIUs, the capacity to manage SOE procedures would be adequate. The advance amount will be deposited to the Central Bank, and PMU will request for SLR amount to the project account opened at a commercial bank acceptable

to the government and ADB which can provide all local and foreign banking needs. ADB funds will be kept in a separate account. MHECA has also experience in handling large volumes of funds to their designated bank accounts. For 2016, MHECA operated with a budget of SLR45 billion (around \$290 million equivalent). But the universities' experience in implementing similar lender/government-funded projects implies that they have sufficient administrative and accounting capacities. Nonetheless, PIU staff would require training on ADB-specific advance fund and SOE procedures.

36. MHECA and the universities agreed to implement the financial management action plan in Table 14 to mitigate their deficiencies and high-risk processes and controls. The financial management risks and mitigation measures will be updated throughout the life of the project.

Table 14: Financial Management Action Plan

Action	Responsibility	Timeframe
1. Constitute a project steering committee to oversee project implementation and monitoring, including financial oversight and reporting.	MHECA (PMU)	Immediately following loan signing or commencement of project implementation, whichever occurs earlier.
2. Constitute a project coordination committee in each university to oversee project implementation and monitoring at the PIU university level, including financial oversight and reporting.	Universities (PIUs)	Immediately following loan signing or commencement of project implementation, whichever occurs earlier.
3. Recruit a financial management specialist to assume overall accountability, including effective financial management and reporting, as well as annual budgeting in coordination with the chief accountant from MHECA.	MHECA	Within one month of loan signing or commencement of project implementation whichever occurs earlier.
4. Assign a full-time accounting assistant from MHECA to the PMU (or recruit externally if a suitable candidate is not available in the PMU) to ensure effective records keeping and accounting from project inception. Disseminating updated, complete and accurate information would be critical for effective decision making and performance.	MHECA	Within one month of loan signing or commencement of project implementation whichever occurs earlier.
5. Recruit a full-time project director and technical/supervisory staff. The project director would be responsible for planning, coordination, execution, and overall supervision of the project.	MHECA	Within one month of loan signing or commencement of project implementation whichever occurs earlier.
6. Procure accounting and financial management system software for the PMU and PIUs. The software should have double-entry book keeping capability with integrated stock control, fixed assets control, accounts payable, and payroll modules. Alternatively, a manual records keeping/accounting system could be considered following an assessment of anticipated volume and frequency of transactions and reporting stringencies.	MHECA and universities	Within one month of loan signing or commencement of project implementation whichever occurs earlier.
7. Open dedicated bank accounts (separate for ADB and government funds) for the PMU and each PIU to ensure efficient project funds management and prevent any risk of comingling of project funds.	MHECA and universities	Within one month of loan signing or commencement of project implementation whichever occurs earlier.
8. Strengthen internal audit function by hiring an internal auditor within PMU to carry out risk assessment and capacity building training, and formulate and implement an annual internal audit plan covering the project activities in coordination with internal auditors in the universities.	MHECA and universities	Within two weeks of setting up PIU
9. Agree on terms of reference with AGD for project's external audit. Consult with AGD on whether the audit will be conducted directly by AGD or by an audit firm.	MHECA and universities	Loan negotiations

Action	Responsibility	Timeframe
10. Assign the bursar of each university to assume overall financial and accounting responsibilities for the project on time-sharing basis.	Universities	Within one month of loan signing or commencement of project implementation whichever occurs earlier.
11. Assign a project coordinator for the PIU (recruit a qualified professional if the requirement cannot be met internally from current resources).	Universities	
12. Recruit a full-time accounting/management assistant for records keeping and office support	Universities	
13. Recruit a technical assistant/supervisor to support project implementation and coordination.	Universities	

AGD = Auditor General's Department, MHECA = Ministry of Higher Education and Cultural Affairs, PIU = project implementation unit, PMU = project management unit.

Source: Asian Development Bank.

B. Disbursement

1. Disbursement Arrangements for ADB Funds

37. The loan proceeds will be disbursed in accordance with *ADB's Loan Disbursement Handbook* (2017, as amended from time to time),⁷ and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.⁸ The PMU and PIU staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control. Upon appointment, PMU and PIU staff, including the managerial staff and accounting staff who will be involved in disbursement process, will be trained by ADB's Sri Lanka Resident Mission Disbursement Unit.

38. The PMU will take overall responsibility for financial management, including disbursements and accounting. The PMU, through MHECA's authorized signatories,⁹ will submit withdrawal applications to ADB for (i) direct payments, (ii) advances, (ii) reimbursement and/or liquidation, and (iv) replenishment with the required supporting documents in ADB's Loan Disbursement Handbook. The PMU will also be responsible for submitting consolidated project financial statements, transfer funds to the PIU sub-accounts per their approved annual workplans and estimated expenditures, and records keeping.¹⁰ For transactions carried out by university PIUs, PIUs will establish and maintain sound record keeping systems, and make available required documents to internal and external auditors, as well as to ADB or ADB appointed representatives as required. PIUs will provide regular financial reports for PMU's monitoring and consolidated financial reports.

39. **Direct payments.** Payments for the civil works, construction supervision consultant, and other payments, which either are in large amounts or should be made in United States dollars, will be made by direct payment from ADB to the contractors upon receipt of PMU's withdrawal applications with necessary supporting documents. Payments for goods suppliers may be made either by direct payment from ADB or through the PMU and PIU through advance fund procedure.

⁷ The handbook is available from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>).

⁸ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning

⁹ The advance account will have two authorized signatories—project director, and finance manager. For withdrawal applications, project director, finance manager, and chief accountant of MHECA will be authorized to sign the withdrawal applications.

¹⁰ ADB requires all documents to be retained for at least 1 year after ADB receives the APFS for the final accounting period of implementation, or 2 years after the loan closing date, whichever is later. Government practice provides for all documents and records to be retained for at least 5 years.

40. **Advance fund procedure.** Two accounts in United States dollar will be established at the Central Bank of Sri Lanka under MHECA to receive OCR and COL disbursement from ADB. PMU will be responsible for the advance accounts, including liquidation, reimbursement, and reconciliation with sub-accounts of universities and loan accounts at the Central Bank. Separate sub-accounts in SLR will be established in each university's PIU at state-owned commercial banks acceptable to the government and ADB to receive advances from the PMU account for activities and contracts they are responsible for.

41. All accounts will only be opened after establishing satisfactory accounting capacity at the PMU and PIUs. The advance and sub-accounts are to be used exclusively for ADB's share of eligible expenditures. The PMU and PIUs are accountable for properly using and monitoring advances to the PMU's advance accounts and PIUs' sub-accounts. They will conduct at least monthly reconciliations, and prepare the withdrawal applications to replenish the accounts.

42. The total outstanding advances to the advance accounts and sub-accounts should not exceed the estimate of ADB's share of expenditures to be paid through the PMU's advance accounts for six months. The PMU may request initial and additional advances to the PMU's advance account based on an Estimate of Expenditures Sheet.¹¹ Supporting documents should be submitted to ADB or retained by the PMU following ADB's *Loan Disbursement Handbook* when liquidating or replenishing the advance account and sub-accounts.

43. **Statement of expenditures procedure.**¹² The SOE procedure may be used for reimbursing eligible expenditures or liquidating advances to the advance account. Supporting documents and records for the expenditures claimed under the SOE procedure should be maintained and made readily available for review by ADB's disbursement and review missions, and/or upon ADB's request for supporting documents on a sampling basis and for independent audit. The ceiling of the SOE procedure is the equivalent of \$100,000 or less per individual payment. Reimbursement or liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

44. **Authorized signatories.** Before submitting the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person.

45. **Other matters with withdrawal applications.** The minimum value per withdrawal application is stipulated in the ADB's *Loan Disbursement Handbook*. Individual payments below such amount should be paid (i) by the PMU or PIU and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The PMU should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's online Client Portal for Disbursements¹³ system is encouraged for submission of withdrawal applications to ADB.

46. The withdrawal applications for reimbursing expenditures incurred under retroactive financing pre-financed by the government can be submitted through the SOE procedure along

¹¹ Estimate of Expenditures Sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook*.

¹² SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook*.

¹³ The Client Portal for Disbursements facilitates online submission of withdrawal applications to ADB, resulting in faster disbursement. The forms are available in <https://www.adb.org/documents/client-portal-disbursements-guide>.

with adequate supporting documents following ADB's *Loan Disbursement Handbook* within 6 months after loan effectiveness.

2. Disbursement Arrangements for Counterpart Fund

47. The PMU will request budgetary allocations for projected disbursements, including the required counterpart funds. Such disbursement projections will include the PIUs' estimated expenditures in their annual workplans, and local taxes and duties, in time for annual budgeting process to ensure adequate budget is allocated for the following financial year. Separate sub-accounts for the counterpart funds will be opened by the PMU and PIUs at state-owned commercial banks acceptable to the government and ADB.

C. Accounting

48. MHECA, through the PMU and PIUs, will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following accrual-based accounting following the International Public Sector Accounting Standard or other standard acceptable to ADB. The PMU will prepare consolidated annual project financial statements incorporating university-level project financial statements, generated from the common accounting software, following the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

49. MHECA will cause the detailed consolidated APFS to be audited following the Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000–1810) by AGD or an independent auditor acceptable to AGD. The APFS together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by MHECA.

50. The audit report for the project financial statements will include a management letter and auditor's opinion on whether the (i) project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) proceeds of the loans, including advances, were used only for the purposes of the project; and (iii) borrower or MHECA comply with the financial covenants in the legal agreements (where applicable). The first APFS should cover the retroactive financing period.

51. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

52. The government, MHECA and universities have been made aware of ADB's approach to delayed submission,¹⁴ and the requirements for satisfactory and acceptable quality of the APFS.

¹⁴ When APFS are not received (i) by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue, and (b) if they are not received within the next 6 months, requests for new contract awards and disbursements, such as new replenishment of advance accounts, reimbursement, and commitment letters, will not be processed; (ii) within 6 months after the due date, ADB will withhold processing requests for new contract awards and disbursements, and ADB will (a) inform the executing agency of ADB's actions, and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months; and (iii) within 12 months after the due date, ADB may suspend the loan.

ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used following ADB's policies and procedures.

53. Public disclosure of the APFS, including the auditor's opinion on the project financial statements, will be guided by ADB's *Public Communications Policy* (2011).¹⁵ After the review, ADB will disclose the APFS and the auditor's opinion no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, and additional auditor's opinions will not be disclosed.¹⁶

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

54. All advance contracting and retroactive financing will be undertaken following *ADB Procurement Policy* (2017, as amended from time to time) and *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time). Invitations to bid under advance contracting and retroactive financing will be issued subject to ADB approval. The borrower, MHECA and universities have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

55. **Advance contracting.** Advance contracting will apply for the (i) civil works for the faculty buildings at the universities until bid evaluation; (ii) supply of small equipment and furniture for the PMU and PIUs, and ongoing academic programs up to contract award; and (iii) consulting services for the construction supervision consultant until evaluation of technical and financial proposals, and other consultants supporting project implementation until contract award.

56. **Retroactive financing.** ADB may finance eligible expenditures including works, goods, consulting services, grant scheme, and recurrent costs, up to 20% of the loans incurred before loan effectiveness and within 12 months before loan signing.

B. Procurement of Goods, Works, and Services

57. All procurement of goods, works, and nonconsulting and consulting Services will follow the *ADB Procurement Policy*, and *Procurement Regulations*.

58. Open competitive bidding (OCB) will apply to (i) works and goods contracts valued at least \$15 million and \$2 million, respectively, with international advertisement; (ii) works contracts valued from \$100,001 to \$14,999,999, and goods contracts valued from \$100,001 and \$1,999,999 with national advertisement (Box 1); and (iii) services—the construction supervision consultant will be advertised internationally, and other consultants will be advertised either internationally or nationally. OCB for works will use the single-stage, two-envelope bidding procedure; and OCB for goods will use the single-stage, one-envelope bidding procedure. Requests for quotations will be sought for works, goods and services valued up to \$100,000.

¹⁵ Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

¹⁶ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. para 97(iv) and/or 97(v).

59. A procurement plan indicating threshold and review procedures, contract packages, and national procurement guidelines is in Section C. The procurement plan includes (i) works contracts for faculty buildings; (ii) goods contracts for equipment and furniture for the PMU, PIU offices and faculty buildings at the universities, and vehicles for the PMU and universities; and (iii) services.

60. The PMU will be directly responsible for procuring civil works, goods, services and non-procurable inputs which are beyond the ceiling delegated by the MHECA secretary. The delegated ceiling for universities is SLR50 million, which can be adjusted in consultation with the PSC and ADB.

61. The project will require 359 person-months of consulting services (90 international and 269 national). MHECA will recruit the construction supervision consultant (239 person-months, international and national) using the quality-and cost-based selection method with a standard quality-cost ratio of 90:10 to assist the PMU in reviewing the works contractors detailed designs, monitor construction, and facilitate payments. MHECA will also recruit the external auditor (30 person-months, national) using the least-cost based selection method. Individual consultants (90 person-months, international and national) will be recruited through the individual consultant selection method to support project implementation, including experts on gender, university industry linkages, and quality assurance. The consultants' outline terms of reference are in Appendix 1.¹⁷

62. ADB and the government reviewed the public procurement laws of the government to ensure consistency with the ADB *Procurement Policy* and *Procurement Regulations*. The additional requirements for OCB with national advertisement are described in Box 1.

Box 1: Open Competitive Bidding – National Advertisement

A. Regulation and Reference Documents

1. The procedures to be followed for open competitive bidding with national advertisement (OCB-National) shall conform to the provisions in the *Procurement Guidelines 2006 for Goods and Works* issued in January 2006 by the National Procurement Agency, and specific procedures prescribed by the *Procurement Manual* issued in March 2006, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the *ADB Procurement Policy* (2017, as amended from time to time) and *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time).

B. Procurement Procedures

2. **Eligibility.** The eligibility of bidders shall be as defined under the Asian Development Bank's (ADB) *Procurement Policy* and *Procurement Regulations*. Accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in the *Procurement Policy* and *Procurement Regulations*.

3. **Registration and Sanctioning.** Registration is acceptable under the following conditions:

- (i) Bidding shall not be restricted to pre-registered firms under the national registration system of the Construction Industry Development Agency (CIDA) and registration of Medical Equipment with the Cosmetics, Devices and Drugs Act (CDDA), and such registrations shall not be a condition for the submission of bids in the bidding process.
- (ii) Where registration is required prior to award of contract, bidders shall (a) be allowed a reasonable time to complete the CIDA/CDDA registration process; and (b) not be denied registration for reasons unrelated to their capability and resources to successfully perform the contract, which

¹⁷ Checklists for actions required to contract consultants by method are available in the e-Handbook on Project Implementation at <http://www.adb.org/documents/handbooks/project-implementation/>

shall be verified through post-qualification.

(iii) National sanction lists or blacklists may be applied only with prior approval of ADB.

4. **Prequalification.** Prequalification is discouraged for OCB-National. When used, particularly for works contracts, an individual prequalification exercise is acceptable for each contract as is the use of a registration system (or approved standing list) of contractors based on criteria such as experience, financial capacity, and technical capacity. Foreign bidders from eligible countries must, however, be allowed to register and to bid without unreasonable cost or additional requirements.

5. **Advertising.** The posting of OCB-National specific notices for contracts valued at less than \$1 million on ADB's website is not required but is highly recommended.

6. **Preferences.** The following shall be observed: (i) no preference of any kind shall be given to domestic bidders or domestically manufactured goods; and (ii) foreign suppliers and contractors from ADB member countries shall be allowed to bid without registration, licensing, and other government authorizations, leaving compliance with these requirements for after award and before signing of contract.

7. **Participation by government-owned enterprises.** Government-owned enterprises in the Democratic Socialist Republic of Sri Lanka shall be eligible to participate only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the procuring entity, executing agency or implementing agency.

8. **Rejection of bids and rebidding.** Bids shall not be subjected to a test for unrealistic rates. No lowest evaluated and substantially responsive bid shall be rejected based on comparison to rates, including but not limited to market, historical, or agency established rates, without prior approval of ADB.

9. Bids shall not be rejected, and new bids solicited without ADB's prior concurrence.

10. **Price negotiation.** Price negotiation shall be allowed only where the price offered by the lowest evaluated and substantially responsive bidder substantially exceeds costs estimates. Approval of ADB is required prior to any price negotiation.

C. Bidding Documents

11. **Acceptable bidding documents.** Procuring entities shall use standard bidding documents acceptable to ADB for procuring goods, works, and services based ideally on the standard bidding documents issued by ADB.

12. **Bid security.** Where required, bid security shall be in the form of a certified cheque, letter of credit or bank guarantee from a reputable bank.

13. **ADB policy clauses.** A provision shall be included in all OCB-National works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts, records and other documents relating to the bid submission and performance of the contract, and to have them audited by auditors appointed by ADB.

14. A provision shall be included in all bidding documents for OCB-National works and goods contracts financed by ADB stating that the borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.

15. A provision shall be included in all bidding documents for OCB-National works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

Source: Asian Development Bank.

C. Procurement Plan

63. The procurement plan, including advanced procurement action items is in Appendix 2. This will be updated with the approval of MHECA, in agreement with ADB, as part of the annual planning process or as required during implementation.

VII. SAFEGUARDS

64. **Environment.** Following ADB's *Safeguard Policy Statement* (SPS, 2009), the project is *categorized B* for environment as the civil works for the faculty buildings for the four universities will have location-specific, time-bound impacts during construction. For the new building facilities, wastewater treatment plants will be built to prevent water pollution in nearby water bodies. In addition to standard wastewater management following relevant government regulations, standard operating procedures for laboratories that require any specialized waste and wastewater management during operations will be developed to prevent discharge or disposal of biochemical and other waste and wastewater that should be separated from the usual waste management, following international practices. The initial environment examination for the whole project, and EMPs for each location describe the potential environmental impacts and mitigation measures. The PMU will hire an environmental safeguard officer (consultant) to support the universities in monitoring and reporting EMP implementation. The environmental monitoring report will be submitted by MHECA to ADB semi-annually during construction, and annually after construction is completed.

65. **Involuntary resettlement.** The project is *categorized C* per the SPS. The land acquired by Rajarata University of Sri Lanka and University of Sri Jayewardenepura led to negotiated relocation of three households.

66. **Indigenous peoples.** The project is *categorized C* as there are no indigenous peoples in the project area following the SPS.

67. **Prohibited investment activities.** ADB funds may not be applied to the activities in the ADB Prohibited Investment Activities List in Appendix 5 of the SPS.

VIII. GENDER AND SOCIAL DIMENSIONS

68. The project is categorized as *gender equity* considering that higher education in technology areas can provide opportunities to challenge the gender stereotypes related to technology professions, and empower female graduates in pursuing labor market opportunities.

69. Despite satisfactory gender parity in some education sector indicators, major inequalities persist. Female students outperform male students at the secondary education level and outnumber them at the undergraduate level (62% of total undergraduates are female). However, female students' predominance in arts streams (82.2% of arts stream students admitted to undergraduate courses in 2015 are female), and male students' overrepresentation in science, technology, engineering and mathematics (STEM) streams demand attention. Gender stereotypes deeply rooted in the cultural psyche of the family, school, and society create a major blockage for girls to select STEM-related courses. There is not only a lack of guidance and encouragement by parents, teachers and adults but also consistent discouragement to select such courses, and lack of visible role models, i.e., successful female professionals in STEM areas, for female students. From the employment perspective, although the country's unemployment rate decreased to 4.2% (male: 2.7%, female: 6.8%), youth unemployment rates stay alarming with 18.3% of youth 15 to 24 years old, and 9.8% of youth 25 to 29 years old being unemployed (third quarter 2017). The rates are higher among women with 23.9% and 17.4% being unemployed in these age groups, respectively. When comparing unemployment rates with education levels, the largest proportion of unemployment is among educated (advanced level or above) women, which is 10.8%. Lower female labor force participation has been a constant social and economic issue which remains at or below 37%. Barriers to improve female labor force

participation are both in the supply side—time, skill, mobility, capital, and information constraints, and demand side—discrimination at interviews and workplace. Existing norms and culture regarding women’s status and role in the family and society shape both types of constraints.

70. Per the UGC tracer study, job placement rates among science, engineering, and technology areas are high. Helping more female students participate in technology-oriented programs and encouraging them to take up careers in non-traditional areas will help break gender stereotypes and empower women. The focus group discussions with students and faculty members revealed that there is limited understanding of career opportunities among both students and faculty members, and well-resourced and networked career guidance programs, especially for female students, would be critical to bridge the gap. Professional women’s groups, especially from the private sector, will help present real-life role models, and provide opportunities for young female graduates to learn from industry figures on how to progress in the career ladder, and address gender bias undermining or discouraging their careers.

71. The gender action plan (GAP) includes (i) consultations with students and lecturers on including women-friendly facilities in the faculty building designs; (ii) recruiting faculty members in a gender equitable manner; (iii) ensuring gender-sensitive program curricula and trainings for students, lecturers and industry human resource managers; and (iv) providing soft skills and mentoring for female graduates to thrive in non-traditional and emerging jobs. The PMU and PIU will monitor and report GAP implementation with support from a gender consultant and university gender cells. The progress will be reported to the PSC through quarterly progress reports.

Table 15: Gender Action Plan

Activities	Targets and Indicators	Responsible Agency	Timeframe
Output 1. Innovative technology learning and research environment established			
1.1 Consult students and lecturers during construction design, and incorporate their views in designing women- friendly facilities.	1.1.1 At least two consultation sessions are conducted in each university 1.1.2 Consultation groups include 50% women 1.1.3 Consultation findings are documented with a list of women-friendly features in building facility 1.1.4 Modern faculty infrastructure, including women-friendly facilities, established in 4 universities (2017 baseline: none)	IAs (universities)	Before finalizing the bidding document for design-build contracts, and during the detailed design stage by selected contractor by 2021
1.2 Ensure operations manual for industry collaboration and innovation centers are gender mainstreamed	Gender equity measures to be considered in industry collaboration and industry centers are clearly articulated in the operations manual	IAs (universities) with the help of gender expert from PMU and UGC standing committee on technology faculty/ gender unit of UGC/Quality Assurance Council	Before finalizing the operations manual by 2019
Output 2. Quality and industry-relevant higher technology education programs implemented			
2.1 Ensure program curricula are gender sensitive and have	2.1.1 All program curricula are reviewed by a panel of gender experts. The panel will consist of (i) a representative of each university gender cell, (ii) a representative	IAs’ (universities) gender cells with the help of gender expert from PMU	By Q2 2019

Activities	Targets and Indicators	Responsible Agency	Timeframe
gender affirmative concepts	<p>from the UGC gender unit, (iii) at least one female lecturer from each university, (iv) at least one female industry professional from the women think tank, and (iv) a PMU gender expert. The panel will review the academic program curricula and requirements (such as internship arrangements) to strengthen gender balance, and ensure female students' full participation and achievement.</p> <p>2.1.2 Gender-sensitive concerns and gender-affirmative actions proposed by expert panel are documented</p> <p>2.1.3 Program curricula are improved by incorporating proposals of the expert panel</p>	and UGC standing committee/gender unit of UGC/ Quality Assurance Council	<p>By Q3 2019</p> <p>By Q4 2019</p>
2.2 Fill cadre positions in a gender equitable manner	<p>2.2.1 At least 90% (of which 60% or more with PhD) of approved new faculty cadre positions filled up (35% women) (2017 baseline: 70%, 62% with PhD, and 33% women)</p> <p>2.2.2 At least one female lecturer/demonstrator is available in each faculty to conduct practical lessons related to engineering</p>	IAs (universities)	<p>By 2021</p> <p>By 2021</p>
2.3 Conduct gender capacity building programs for lecturers and students	<p>2.3.1 Two gender training manuals (one for students and one for teachers) are developed in partnership with gender cells of universities with a focus on women in non-traditional fields and on male engagement for promoting gender equality</p> <p>2.3.2 At least 80% of lecturers participated in gender training</p> <p>2.3.3 At least 80% of students (50% women) are included in gender training</p>	<p>MHECA (PMU with the help of a gender expert [consultant]) in coordination with gender cells from universities</p> <p>IA (universities) with the help of PMU and gender expert (consultant)</p>	<p>By 2019</p> <p>By 2020</p> <p>By 2020</p>
Output 3. Industry linkages and international collaborations strengthened			
3.1 Develop a strategy to engage industry in facilitating employment for women in technology fields	A strategy and action plan developed and implemented on industry engagement for promoting employment for women in technology fields.	University representatives engaging industry associations, women think tank and groups. PMU to facilitate and support the process.	By 2019
3.2 Conduct gender sensitization for	At least 5 training programs conducted over five years targeting over 50 companies	MHECA (PMU) with participation	By 2023

Activities	Targets and Indicators	Responsible Agency	Timeframe
industries, focusing HR managers		of IAs' career guidance centers/ cells and industry liaison officers	
Output 4. Faculty management capacity strengthened			
4.1 Career and employment guidance centers in four universities improved with focus on technology program students and female students	<p>4.1.1 The centers produce annual reports on job placements (positions, entry level salaries, etc.) of female and male graduates; and programs for industry links conducted supporting students' career guidance</p> <p>4.1.2 At least 15 soft skills and leadership trainings provided to all female graduates, prioritizing those entering non-traditional and emerging jobs</p> <p>4.1.3 A women's think tank is facilitated with linkage to career guidance center to provide mentoring support and advice to fresh graduates entering the job markets</p> <p>4.1.4 At least 200 female graduates receive continuous mentoring support from senior women professionals and female alumni network during the first year of their employment and entrepreneurship</p> <p>4.1.5 Universities and alumni networks actively participate in social awareness raising by providing role models for female students. At least one outreach program per university every year, and four video materials featuring inspiring female graduates developed and disseminated through social media</p>	<p>IAs (universities) with the help of PMU and gender expert (consultant) MHECA (PMU supported by a gender expert [consultant]) with the participation of implementing agencies' career guidance centers/ cells and industry liaison officers</p> <p>Each university for school outreach programs</p> <p>Each university with PMU support for video material development and dissemination</p>	<p>By 2021 and annually</p> <p>By 2023</p> <p>By 2019</p> <p>By 2023</p> <p>By 2023</p>
4.2 Conduct training for academic and non-academic staff capacity development (90% of female staff)	<p>4.2.1 Staff professional development program to include gender mainstreaming training and incorporate gender themes</p> <p>4.2.2 Monitor female staff participation, and provide at least one specific training to cater to female staff needs every year.</p>	<p>PMU and PIUs supported by a gender expert.</p> <p>PMU and PIUs supported by a gender expert.</p>	<p>By 2023</p> <p>By 2023</p>
4.3 Collect and manage sex-disaggregated data on all project related activities	Sex-disaggregated data are collected and reported in relevant reports	Implementing agencies (universities) and PMU	From 2018 throughout project implementation period
Output 5. New higher education project preparation supported			
5.1 Design a new project to support innovation capacity in higher education with gender-related issues	<p>5.1.1 A comprehensive gender analysis on research and innovation capacity in higher education completed to inform gender-related design features</p> <p>5.1.2 Focus group discussions with university and women think tanks and</p>	MHECA, UGC, ADB, and industry groups	By 2023

Activities	Targets and Indicators	Responsible Agency	Timeframe
	other industry groups to validate the feasibility and effectiveness of the proposed gender design features		

ADB = Asian Development Bank, IA = implementing agency, MHECA = Ministry of Higher Education and Cultural Affairs, PIU = project implementation unit, PMU = project management unit, UGC = University Grants Commission.
Source: Asian Development Bank.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

Table 16: Design and Monitoring Framework

Impact the Project is Aligned with An educated and knowledgeable labor force for accelerated economic growth developed (Higher Education Development Strategy) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Access to employment-oriented higher technology education improved	<p>a. By 2024, at least 7,250 students (35.0% women) enrolled in new technology programs in four universities^b (2017 baseline: 1,082 students, 33.7% women)</p> <p>b. By 2024, at least 2,600 graduates (both men and women, cumulative) completed industry attachment program (2017 baseline: none)</p>	<p>a. University Grant Commission annual report</p> <p>b. Project performance report</p>	<p>Limited social awareness of career paths and social norms constrain female enrollment and employment in technical areas</p> <p>Fiscal constraints undermine financial sustainability</p>
Outputs 1. Innovative technology learning and research environment established	<p>1a. By 2021, modern faculty infrastructure, including women-friendly facilities, established in four universities^c (2017 baseline: none)</p> <p>1b. By 2023, industry collaboration and innovation centers operational in four universities (2017 baseline: none)</p>	<p>1a. Project performance report and green building certificate</p> <p>1b. Project performance report and university prospects</p>	Limited cooperation from industries leads to lower graduate employment and underutilization of facilities
2. Quality and industry-relevant higher technology education programs implemented	<p>2a. By 2023, at least 15 new degree program curricula up to fourth year designed and implemented with industry participation in four universities (2017 baseline: none)</p> <p>2b. By 2023, at least 75% of new technology programs in four universities applied for accreditation aligned with international standards (2017 baseline: none)</p> <p>2c. By 2021, at least 90% (of which 60% or more with PhD) of required new faculty</p>	<p>2a. Project performance report</p> <p>2b. Project performance report and accreditation application documents</p>	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	cadre positions filled (35% women) (2017 baseline: 70%, 62% with PhD, and 33% women)	2c. Project performance report	
3. Industry linkages and international collaborations strengthened	3a. By 2023, at least eight university–industry training and research collaboration initiatives implemented (2017 baseline: none) 3b. By 2023, at least four international collaborations for innovative learning, industry linkages, and research initiatives forged (2017 baseline: none)	3a. Project performance report and MOUs with industry 3b. Project performance report and MOUs with international education or research partners	
4. Faculty management capacity strengthened	4a. By 2023, faculty staff performance management system emphasizing teaching practice improvement and industry collaboration implemented in four universities (2017 baseline: NA) 4b. By 2023, at least 80% of academic and nonacademic staff (90% women) completed predefined professional development programs including gender theme (2017 baseline: NA) 4c. By 2023, career and employment guidance centers in four universities improved with focus on technology program students and female students (2017 baseline: all universities have career guidance or student services center, in main campus)	4a. Project performance report 4b. Project performance report 4c. Project performance report	
5. New higher education project preparation supported	5a. By 2023, at least two feasibility studies for new higher education or innovation capacity projects with gender-related design features completed (2017 baseline: NA) 5b. By 2023, procurement readiness achieved for at least one new project (2017 baseline: NA)	5a. NPD approved concept paper 5b. Detailed design and bidding documents	

Key Activities with Milestones

1. Innovative technology learning and research environment established

- 1.1 Prepare design and build bidding documents for four universities (Q4 2018).
- 1.2 Complete procurement of initial laboratory goods and equipment for new technology and engineering faculties (Q3 2021).
- 1.3 Approve detailed design, complete construction plans, and commence civil works (Q1 2020).
- 1.4 Prepare operations manual for industry collaboration and innovation centers at four universities (Q2 2019).

2. Quality and industry-relevant higher technology education programs implemented

- 2.1 Conduct industry consultations, including women participants, for employment-oriented new degree programs (Q3 2018).
- 2.2 Conclude MOU with world-class universities and industries to introduce quality and employment-oriented degree programs (Q1 2019).

<p>2.3 Commence new degree programs for fourth year students (Q1 2020).</p> <p>2.4 Apply for international accreditation for new technology programs in four universities with relevant international standards (Q3 2023).</p> <p>3. Industry linkages and international collaborations strengthened</p> <p>3.1 Develop operations manual for quality and innovation grants to boost dissemination and commercialization of university research (Q3 2019).</p> <p>3.2 Commence industry training placement for students and academic staff (Q3 2020).</p> <p>3.3 Establish industry collaboration and innovation centers (Q3 2021).</p> <p>4. Faculty management capacity strengthened</p> <p>4.1 Develop academic and nonacademic staff professional development programs (Q1 2019).</p> <p>4.2 Develop operations manual for career guidance and employment guidance center, including special programs for females at four universities (Q2 2019).</p> <p>5. New higher education project preparation supported</p> <p>5.1 Prepare concept paper, including gender-related design features, for higher education or innovation capacity projects (Q1 2019–Q1 2020).</p> <p>5.2 Prepare detailed design and bidding documents (Q3 2020–Q3 2021).</p> <p>Project Management Activities</p> <p>Establish PMU and PIUs and produce quarterly progress reports (from Q3 2018)</p> <p>Deploy the construction supervision consultant (Q1 2019–Q1 2022)</p>
<p>Inputs</p> <p>ADB: \$145 million (\$83.02 million OCR and \$61.98 million COL)</p> <p>Government: \$20 million</p>
<p>Assumptions for Partner Financing</p> <p>Not Applicable</p>

ADB = Asian Development Bank, COL = ordinary capital resources concessional loan, MOU = memorandum of understanding, NA = not applicable, NPD = Department of National Planning, OCR = ordinary capital resources, PhD = doctor of philosophy, PIU = project implementation unit, PMU = project management unit.

^a Government of Sri Lanka, Ministry of Higher Education and Cultural Affairs. Forthcoming. *Higher Education Development Strategy*. Colombo.

^b Bachelor of engineering technology, bachelor of biosystems technology, bachelor of information and communication technology, and bachelor of engineering as basic degree, with specialization aligned with industry demand such as food production, food processing technology, agricultural engineering, computer network technology, industrial processing, and instrument and automation.

^c Women-friendly facilities include sanitation facilities with adequate number and quality, female hostels, female staff residences, female students' study areas, and female staff lounges.

Source: Asian Development Bank.

B. Monitoring

72. **Project performance monitoring.** The PSC will review overall project performance, the performance of each university against the project outcome and output indicators in the DMF and GAP, as well as financial and physical progress. They will meet quarterly upon receipt of the PMU's quarterly progress reports. The quarterly progress reports will also be submitted to ADB and the Department of Program Management and Monitoring by 20 April, 20 July, 20 October, and 20 January every year during project implementation. They will include updates on the DMF, GAP, physical and financial progress (contract awards and disbursements) against annual workplan targets of the PMU and universities.

73. **Covenant compliance monitoring.** Loan covenants—policy, financial, economic, environmental, and others—will be monitored through the semi-annual progress reports due by 20 July and 20 January every year, and ADB review missions.

74. **Safeguards monitoring.** The PMU, with consultant support, will ensure that the EMPs are implemented by the universities and contractors. They will submit semi-annual safeguard monitoring reports to ADB during construction, and annual monitoring reports after construction

for public disclosure.

75. **Gender and social dimensions monitoring.** The progress in GAP implementation will be included in the quarterly progress reports with consultant support.

C. Evaluation

76. **Inception mission.** ADB will field an inception mission before loan effectiveness to mainly (i) re-establish the working relationships among ADB, MHECA, and the universities; (ii) reconfirm the project implementation schedule, and contract award and disbursement projections (Sections II and IV); and (iii) finalize the detailed disbursement arrangements, particularly with regards to the PMU's advance account and PIU's sub-accounts.

77. **Review missions.** ADB will field semi-annual review missions to check overall project implementation, including the progress against the project outcome and outputs, covenant compliance, safeguards, gender and social dimensions, and utilization of both ADB and government counterpart funds. The project implementation schedule will also be updated as necessary.

78. **Midterm review mission.** ADB will field a midterm review mission within three years after loan effectiveness to primarily assess whether the project outcome is still likely to be achieved, as well as the contract award and disbursement projections.

79. **Project completion review mission.** ADB, with the borrower and MHECA, will field a project completion review mission to primarily evaluate whether the project outcome was achieved, and assess the performance of ADB, MHECA, and the universities. MHECA will submit its project completion report to ADB within six months of project completion. ADB will also prepare and disclose its own project completion report.

D. Reporting

80. MHECA will provide ADB with the (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual progress reports (in lieu of the quarterly progress report) due by 20 January every year including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; (iii) semi-annual progress reports, including compliance with loan covenants, financial management action plan implementation, and safeguard monitoring reports; and (iv) project completion report. To ensure that the project will continue to be both viable and sustainable, project accounts and MHECA's APFS together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

81. Following ADB's *Public Communications Policy* (2011),¹⁸ ADB will disclose on its website the safeguards and gender monitoring reports on implementation of the EMP, GAP, and resettlement plan; APFS; and procurement information (e.g. invitations for bids, contract awards, and procurement plan updates) immediately after they are made available. MHECA will also disclose the same on their website, as well as the quarterly progress reports.

¹⁸ Public Communications Policy: <https://www.adb.org/documents/pcp-2011>

X. ANTICORRUPTION POLICY

82. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.¹⁹ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.²⁰ To support these efforts, relevant provisions are included in the loan agreements and bidding documents for the project.

83. MHECA will also apply their existing systems, controls and procedures for reporting fraud, corruption, and waste and misuse of resources to the project. For this, MHECA's internal audit unit is expected to play a major role, and all employees within and outside of the project are expected to be whistle blowers. ADB's resolutions in the *Sri Lanka: Country Partnership Strategy (2018–2022)* related to using country systems and managing governance risks will also apply to the project.²¹

XI. GRIEVANCE REDRESS MECHANISM²²

84. The affected person(s)/aggrieved party can give their grievance verbally or in written form to the local site office of each university. Grievances of affected persons will first be brought to the attention of the site-in-charge who can resolve the issue at the site level. If the matter is not resolved within 7 days by the site-in-charge, it will be brought to the Grievance Redress Committee (GRC) constituted under PIU. The GRC-PIU shall discuss the issue in its monthly meeting, and resolve the issue within 1 month after receiving the grievance. If the matter is not resolved, then it shall be referred to the GRC at the PMU level by the PIU head. GRC-PMU shall resolve the issue, and inform the PIU accordingly. If the matter is not resolved within 1 month, then the matter will be referred to the state-level empowered committee who will resolve the compliant within 1 month through mediation.

85. The PIU and project site office shall keep records of all grievances received including the contact details of complainant, date of receiving the complaint, nature of grievance, agreed corrective actions and the date these were effected, and final outcome. For this, a complaint register will be maintained at each site. The complaint will be registered by the aggrieved party by duly filling the form provided. The compliant can be registered via (i) the public response center help line, (ii) landline of the site office, (iii) mobile number of the site-in-charge; (iv) WhatsApp or other messaging application linked to the site-in-charge's mobile number, or (v) email. The PMU and PIUs will publicly display the GRC procedures and relevant contact points at the site and project websites.

¹⁹ Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²⁰ ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

²¹ These include adopting the use of country systems selectively in safeguards and procurement considering agency capacity and associated fiduciary risks and raising awareness of ADB's Anticorruption Policy and its impact on operations in collaboration and engagement with ADB's Office of Anticorruption and Integrity, and Sri Lanka's Commission to Investigate Allegations of Bribery or Corruption. The country partnership strategy is available in <https://www.adb.org/documents/sri-lanka-country-partnership-strategy-2018-2022>.

²² The mechanism is adopted from the World Bank mechanism currently identified for MHECA. The mechanism may need further review once the implementation begins.

86. The cost for functioning the grievance redress mechanism will be accounted for in the project cost as part of the PMU and PIU operational costs. The GRC-PIU will comprise the PIU head, site-in-charge, and one officer from the contractor. The GRC-PIU will be headed by the PIU head, and meet at least once a month. The agenda of the meeting will be circulated to all the members and the affected persons/aggrieved party along with the venue, date and time at least a week prior to the meeting. The PIU head will have the overall responsibility for timely grievance redressal on environmental issues, assisted by the senior technical officer for registration of grievances, related disclosure, and communication with the aggrieved party. The GRC-PMU will be headed by the project director, and senior representatives of the PIUs as relevant. The aggrieved party/person(s) can approach court of law any time with or without filing complaints at the PIU or PMU level.

XII. ACCOUNTABILITY MECHANISM

87. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with ADB's South Asia Department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.²³

XIII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

88. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to the implementation arrangements recorded in the Project Administration Manual, including revision to contract award and disbursement projections.

²³ Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

OUTLINE TERMS OF REFERENCES FOR CONSULTING SERVICES

Gender Specialist (national, 30 person-months, intermittent). As a core team member of PMU, the gender specialist will support the universities in achieving the gender related objectives of the project by facilitating planning, implementation, monitoring and reporting of the gender action plan activities. S/he will work closely with the gender cells in each university and liaise with the University Grants Commission gender division to promote higher education sector level sharing of experience and good practices. She/he is required to have post graduate degree or equivalent in sociology, anthropology, political science, or gender studies, and at least 15 years of relevant experience with at least 5 years in similar projects. Experience with development partner funded projects would be an advantage.

PROCUREMENT PLAN

Basic Data

Project Name: Science and Technology Human Resource Development Project		
Project Number: 50275-002	Approval Number:	
Country: Sri Lanka	Executing Agency: Ministry of Higher Education and Cultural Affairs	
Project Procurement Classification: Category A	Implementing Agency: Rajarata University of Sri Lanka, Sabaragamuwa University of Sri Lanka, University of Kelaniya, University of Sri Jaywardenepura	
Project Procurement Risk: Medium	Project Closing Date: 30 June 2024	
Project Financing Amount: US\$ 165,000,000 ADB Financing: US\$ 145,000,000 Cofinancing (ADB Administered): Non-ADB Financing: US\$ 20,000,000		
Date of First Procurement Plan: 1 July 2018	Date of this Procurement Plan: 1 July 2018	
Procurement Plan Duration (in months): 18	Advance Contracting: Yes	e-GP: No

A. Methods, Review and Procurement Plan

Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, and consulting services.

Procurement of Goods and Works	
Method	Comments
Open Competitive Bidding (OCB) for Goods	For packages estimated to be (i) at least \$2 million - international advertisement, and subject to prior review; and (ii) \$100,001 to \$1,999,999 - national advertisement, with first 2 packages per university and PMU subject to prior review.
Request For Quotation for Goods	For packages estimated to be up to \$100,000 - first two packages per university and from PMU subject to prior review. All other packages will be post-reviewed on sample basis.
Open Competitive Bidding (OCB) for Works	For packages estimated to be (i) at least \$15 million - international advertisement; and (ii) \$100,001 to \$14,999,999 - national advertisement. All packages subject to prior review.
Request For Quotation for Works	For packages estimated to be up to \$100,000 - first two packages per university and from PMU subject to prior review. All other packages will be post-reviewed on sample basis.

Consulting Services	
Method	Comments
Least-Cost Selection for Consulting Firm	
Quality- and Cost-Based Selection for Consulting Firm	
Quality-Based Selection for Consulting Firm	
Competitive for Individual Consultant	
Direct Contracting for Individual Consultant	For individual experts supporting PMU and universities estimated to be up to \$5,000 each - subject to ADB's prior approval

B. Lists of Active Procurement Packages (Contracts)

The following table lists goods, works, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date quarter/ year)	Comments
KE-B1	Kelaniya - Books for engineering technology, computing technology, and computer science degrees	75,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 3 Advance Contracting: Y Comments: L1 Eng tech \$25,000; L2 Computing tech \$25,000; L3 Computer science \$25,000
KE-E1	Kelaniya - Computer equipment Lot 1: General computer lab eqpt Lot 2: Network lab eqpt Lot 3: VR and game designing lab eqpt Lot 4: Laptops and PCs for academic staff Lot 5: Heavy-duty printers and scanners Lot 6: Computer eqpt for faculty library Lot 7: Computer eqpt for faculty centers	200,000.00 85,000.00 47,000.00 38,000.00 20,000.00 2,000.00 5,000.00 3,000.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 7 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
KE-E10	Kelaniya - Industry-university collaborative computing research lab eqpt	25,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y
KE-E11	Kelaniya - Student center equipment	30,000.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 3 Advance Contracting: Y Comments: L1 Gym - fitness eqpt \$15,000; L2 Gym - sports courts and eqpt \$10,000; L3 Entertainment and musical instruments \$5,000
KE-E12	Kelaniya - Engineering laboratory/maker space equipment	35,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: N
KE-E2	Kelaniya - Audio-visual and office equipment	75,000.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 6 Advance Contracting: Y Comments: L1 projectors and screens \$40,000; L2 LED screens \$10,000; L3 Visual presenters \$5,000; L4 Audio systems \$8,000; L5 Multimedia digital podiums \$7,000; L6 Classroom teaching aids \$5,000
KE-E3	Kelaniya - Physics laboratory equipment	84,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 2 Advance Contracting: Y Comments: L1 Mechanical lab eqpt \$40,000; L2 Electrical and electronics lab eqpt \$44,000
KE-E4	Kelaniya - Chemistry lab equipment	84,000.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 2 Advance Contracting: Y Comments: L1 Consumables and glassware \$40,000; L2 General chem lab eqpt \$44,000
KE-E5	Kelaniya - Network and security equipment	80,000.00	RFQ	Post		Q4 / 2018	No. Of Contracts: 2 Advance Contracting: Y Comments: L1 CCTV cameras \$63,000; L2 RFID system

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date quarter/year)	Comments
							\$17,000
KE-E6	Kelaniya - Power equipment	52,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 2 Advance Contracting: Y Comments: L1 UPS \$20,000; L2 Generator \$32,000
KE-E7	Kelaniya - Virtual reality laboratory - camera equipment	40,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y
KE-E8	Kelaniya - Network and security laboratory equipment	195,000.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
KE-E9	Kelaniya - Research laboratory equipment Lot 1: Research eqpt - physics lab Lot 2: Research eqpt - chem lab	167,000.00 84,000.00 83,000.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
KE-F1	Kelaniya - Laboratory Furniture Lot 1: Chem lab furniture Lot 2: Physics lab furniture	274,000.00 150,000.00 124,000.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
KE-F2	Kelaniya - General furniture	10,000.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 3 Advance Contracting: Y Comments: L1 Furniture for faculty ctrs (IICFCT, Nano and CHERP) \$3,000; L2 Furniture for faculty library \$5,000; L3 Furniture for student ctr and common areas \$2,000
KE-S1	Kelaniya - Software for engineering technology, computing technology and computer science degrees	67,000.00	RFQ	Post		Q2 / 2018	No. Of Contracts: 2 Advance Contracting: Y Comments: L1 Software for 1st yr program \$30,000; L2 Software for 2nd yr program \$37,000
PMU/RJ-CW	Rajarata - design-build of faculty buildings	13,300,000.00	OCB	Prior	1S2E	Q4 / 2018	Advertising: International No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Design-Build
PMU/SB-CW	Sabaragamuwa - Design-build of faculty buildings	10,000,000.00	OCB	Prior	1S2E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Design-Build
PMU/SJ-CW	Sri Jayewardenepura - Design-build of faculty buildings	19,803,000.00	OCB	Prior	1S2E	Q3 / 2018	Advertising: International No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Design-Build

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date quarter/year)	Comments
							Advance Contracting: Y Bidding Document: Goods Comments: L1 Workshop eqpt \$16,026; L2 General lab eqpt \$36,154
RJ-E3	Rajarata - Cooling machines for laboratories	27,724.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y
RJ-E4	Rajarata - Equipment for biosystem technology	194,792.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
RJ-E5	Rajarata - Equipment for genetic engineering	131,410.00	OCB	Prior	1S1E	Q1 / 2019	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
RJ-E6	Rajarata - Equipment for bioprocess technology	244,872.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
RJ-E7	Rajarata - Microscope	57,821.00	RFQ	Post		Q2 / 2019	No. Of Contracts: 1 Advance Contracting: N
RJ-E9	Rajarata - Computers and accessories	142,869.00	OCB	Post	1S1E	Q2 / 2019	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
RJ-F1	Rajarata - Office furniture	36,218.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y
RJ-F3	Rajarata - Laboratory furniture - 1st and 2nd year laboratories Lot 1: Material tech lab Lot 2: Food tech lab Lot 3: Biosystems tech lab Lot 4: ICT lab	512,821.00 115,385.00 141,025.00 160,257.00 96,154.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 4 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
RJ-F5	Rajarata - Lecture hall furniture	64,103.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y
RJ-SW1	Rajarata - ICT and engineering software - 1st and 2nd years	160,256.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
RJ-V1	Rajarata - Vehicles for student research and materials collection	195,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date quarter/ year)	Comments
							Bidding Document: Goods Comments: 2 buses, 1 double cab
SB-B1	Sabaragamuwa - Books for 1st year	50,000.00	RFQ	Post		Q4 / 2018	No. Of Contracts: 1 Advance Contracting: N
SB-B2	Sabaragamuwa - Books for 2nd year	56,410.00	RFQ	Post		Q4 / 2019	No. Of Contracts: 1 Advance Contracting: N
SB-E1	Sabaragamuwa - Equipment for faculty office	50,000.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y Comments: L1 Computers, etc \$45,150; L2 Emergency equipment \$700; L3 Fire extinguishers \$500; L4 Appliances \$1,000; L5 Wi-fi routers \$650; L6 Air conditioners \$2,000
SB-E2	Sabaragamuwa - ICT equipment for computer laboratory	121,200.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
SB-E3	Sabaragamuwa - Laboratory equipment for physics, chemistry and biology laboratories	500,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 3 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
	Lot 1: Physics lab eqpt - 1st yr	200,000.00					
	Lot 2: Chem lab eqpt - 1st yr	150,000.00					
	Lot 3: Bio lab eqpt	150,000.00					
SB-F1	Sabaragamuwa - Furniture (general)	85,840.00	RFQ	Post		Q3 / 2019	No. Of Contracts: 1 Advance Contracting: N
SB-F6	Sabaragamuwa - Furniture for faculty office	30,000.00	RFQ	Prior		Q3 / 2018	No. Of Contracts: 1 Advance Contracting: Y Comments: L1 Chairs, tables, and storage \$28,900; L2 White boards \$1,000; L3 Wall clocks \$100
SB-F7	Sabaragamuwa - Laboratory furniture for physics, chemistry and biology laboratories	250,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 3 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
	Lot 1: Physics lab furniture	120,000.00					
	Lot 2: Chem lab furniture	65,000.00					
	Lot 3: Biology lab furniture	65,000.00					
SB-V1	Sabaragamuwa - Vehicles for student research work and materials collection	195,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods Comments: 2 buses and 1 double cab
SJ-BSW1	Sri Jayewardenepura - Software for faculty of engineering	318,300.00	OCB	Post	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 7 Prequalification of Bidders: N

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date quarter/year)	Comments
	Lot 1: Traffic and highway eng software Lot 2: Structural eng software Lot 3: Construction mgt software Lot 4: Hydraulics eng software Lot 5: Surveying software Lot 6: Electrical, electronics and computer eng software Lot 7: Mech eng software	20,200.00 51,300.00 32,000.00 38,500.00 19,250.00 112,180.00 44,870.00					Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
SJ-BSW2	Sri Jayewardenepura - Library books	57,700.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 3 Advance Contracting: Y Comments: L1 Civil eng books \$12,830; L2 Electrical, electronics and computer eng books \$32,050; L3 Mech eng books \$12,820
SJ-E1	Sri Jayewardenepura - Laboratory equipment - civil engineering department Lot 1: Civil eng lab eqpt Lot 2: Road traffic and GPS eqpt	223,920.00 178,800.00 45,120.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
SJ-E2	Sri Jayewardenepura - Laboratory equipment - electrical, electronic and computer engineering department Lot 1: Electronic trainers Lot 2: Electronic measurement and embedded systems	246,350.00 145,840.00 100,510.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
SJ-E3	Sri Jayewardenepura - Laboratory equipment - biomedical and electronics engineering Lot 1: Biomedical eng lab eqpt Lot 2: Electronic eng lab eqpt	185,900.00 44,880.00 141,020.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
SJ-E4	Sri Jayewardenepura - Laboratory equipment - computer engineering department	108,920.00	OCB	Post	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date quarter/ year)	Comments
SJ-E5	Sri Jayewardenepura - Laboratory equipment - Computer engineering high-performance equipment Lot 1: High-performance computing lab eqpt Lot 2: Vision and multimedia lab eqpt Lot 3: Robotics and automation eqpt	287,150.00 108,170.00 51,730.00 127,250.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 3 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
SJ-E6	Sri Jayewardenepura - Laboratory meteorology equipment – mechanical engineering department Lot 1: Meteorology eqpt Lot 2: Strength of materials eqpt Lot 3: Thermo fluid eqpt Lot 4: Automobile eqpt Lot 5: Service eqpt Lot 6: Manufacturing eng eqpt	214,270.00 23,610.00 33,655.00 74,040.00 21,475.00 13,415.00 48,075.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 6 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
SJ-E7	Sri Jayewardenepura - Mechatronic data processing and automation eqpt	119,880.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods
SJ-E8	Sri Jayewardenepura - Faculty maintenance eqpt Lot 1: Maintenance eqpt Lot 2: Air conditioning machines Lot 3: Safety eqpt for laboratories	140,525.00 67,950.00 66,805.00 5,770.00	OCB	Post	1S1E	Q3 / 2018	Advertising: National No. Of Contracts: 3 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
SJ-F1	Sri Jayewardenepura - Furniture and fittings	91,020.00	RFQ	Post		Q3 / 2018	No. Of Contracts: 2 Advance Contracting: Y Comments: L1 Electrical, electronic and computer eng dept \$60,250; L2 Civil and mech eng dept and faculty office \$30,770
SJ-IT1	Sri Jayewardenepura - Computer and accessories - faculty of engineering Lot 1: Computers for labs and faculty office Lot 2: High-performance computers	262,190.00 142,950.00 119,240.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: N Bidding Document: Goods

Consulting Services							
Package Number	General Description	Estimated Value (in US\$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
PMU-CS1	Construction supervision consultant	2,500,000.00	QCBS	Prior	STP	Q3 / 2018	Type: Firm Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: Y Comments: 90:10 quality-cost ratio as approved
PMU-CS2	Gender expert	63,000.00	Competitive	Prior		Q4 / 2018	Type: Individual Assignment: International Expertise: gender Advance Contracting: N Comments: intermittent
PMU-CS3	University industry linkage expert	60,000.00	Competitive	Prior		Q4 / 2018	Type: Individual Assignment: National Expertise: higher education Advance Contracting: N Comments: intermittent
PMU-CS4	University industry linkage expert	25,000.00	Competitive	Prior		Q4 / 2018	Type: Individual Assignment: National Expertise: higher education Advance Contracting: N Comments: intermittent
PMU-CS5	Academic program QA advisor	90,000.00	Competitive	Prior		Q4 / 2018	Type: Individual Assignment: National Expertise: higher education Advance Contracting: N Comments: intermittent
PMU-CS6	Pool of consultants - competitive	200,000.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: International Expertise: various expertise (e.g. engineering, biosystems) Advance Contracting: Y Comments: international and local experts supporting MHECA and universities, intermittent
PMU-CS7	PMU - Pool of consultants - direct contracting	100,000.00	SSS	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: Engineering tech, biotech, pharmaceuticals, bioenergy, etc Advance Contracting: Y Comments: Direct contracting of consultants by PMU/universities subject to ADB's prior approval
PMU-CS8	External auditor	210,000.00	LCS	Prior	BTP	Q4 / 2018	Type: Firm Assignment: National Advance Contracting: N
RJ-CS1	Rajarata - Curriculum development expert - mathematics	6,410.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: math Advance Contracting: Y
RJ-CS2	Rajarata - Curriculum development expert - electronics and electrical technology	6,410.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: electronics and electrical tech Advance Contracting: Y
RJ-CS3	Rajarata - Curriculum development expert - materials technology	6,410.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: materials tech Advance Contracting: Y
RJ-CS4	Rajarata - Curriculum development expert - bioprocess technology	6,410.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: bioprocess technology Advance Contracting: Y
RJ-CS5	Rajarata - Curriculum development expert - food technology	6,410.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: food tech Advance Contracting: Y

Consulting Services							
Package Number	General Description	Estimated Value (in US\$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
RJ-CS6	Rajarata - Curriculum development expert - ICT	6,410.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: ICT Advance Contracting: Y
SB-CS1	Sabaragamuwa - Curriculum development expert - science and technology	9,615.00	Competitive	Prior		Q3 / 2018	Type: Individual Assignment: National Expertise: science and tech Advance Contracting: Y

C. List of Indicative Packages (Contracts) Required Under the Project

The following table lists goods, works, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan duration).

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments	
KE-18	Kelaniya - Solar power system	500,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works	
KE-A1	Kelaniya - Equipment for student and staff facilities	66,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works	
KE-A2	Kelaniya - Equipment for administration facilities	69,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works	
KE-A3	Kelaniya - Equipment for research and business centers	188,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works	
KE-A4	Kelaniya - Equipment for storage and services	16,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works	
KE-BSW1	Kelaniya - Books and software	102,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works	
KE-E13	Kelaniya - Computer equipment	123,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works	
KE-E14	Kelaniya - Audio visual and office equipment	128,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works	
KE-E15	Kelaniya - Laboratory equipment	328,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works	
KE-E16	Kelaniya - Utility equipment	34,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works	
KE-E17	Kelaniya - Classroom equipment	173,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N	

Goods and Works						
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments
						Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
KE-F3	Kelaniya - General furniture	140,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
KE-F4	Kelaniya - Classroom furniture	261,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
KE-F5	Kelaniya - Furniture for all laboratories and workshops	884,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-B2	Rajarata - Library books and journals - 3rd and 4th years	128,205.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-E15	Rajarata - Solar power system for new building - 3rd and 4th yr lecture hall and laboratory complex	641,025.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-E16	Rajarata - Laboratory equipment - 3rd and 4th year laboratories	2,063,079.00	OCB	Prior	1S1E	Advertising Type: International No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-E17	Rajarata - Power generator	32,050.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
RJ-E18	Rajarata - Office equipment	76,538.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
RJ-F2	Rajarata - Office furniture	96,314.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
RJ-F4	Rajarata - Office equipment and furniture	179,000.00	OCB	Prior	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-F6	Rajarata - Lecture hall furniture	128,205.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-F7	Rajarata - Laboratory furniture - 3rd and 4th year laboratories	2,085,897.00	OCB	Prior	1S1E	Advertising Type: International No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
RJ-SW2	Rajarata - ICT and engineering software - 3rd and 4th years	160,256.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N

Goods and Works						
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments
						Bidding Document: Goods Comments: post-works
SB-B3	Sabaragamuwa - Books for 3rd year	100,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
SB-B4	Sabaragamuwa - Books for 4th year	50,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
SB-B5	Sabaragamuwa - Books for postgraduate	50,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
SB-E10	Sabaragamuwa - ICT equipment	80,000.00	RFQ	Post		No. Of Contracts: 1 Comments: post-works
SB-E11	Sabaragamuwa - Laboratory equipment for physics and chemistry laboratories	800,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-E4	Sabaragamuwa - Mechanical and electrical laboratory equipment Lot 1: Mechanical lab eqpt Lot 2: Electrical lab eqpt	1,000,000.00 600,000.00 400,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-E5	Sabaragamuwa - Biotechnology and microbiology laboratory equipment Lot 1: Biotech lab eqpt Lot 2: Microbiology lab eqpt	805,000.00 405,000.00 400,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-E6	Sabaragamuwa - Pharmaceutical and bioenergy laboratory equipment Lot 1: Pharmaceutical lab Lot 2: Bioenergy lab	800,000.00 400,000.00 400,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-E7	Sabaragamuwa - Automobile laboratory equipment	276,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-E8	Sabaragamuwa - Office equipment Lot 1: Eqpt for building 1 Lot 2: Eqpt for building 2	1,630,000.00 1,200,000.00 430,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-E9	Sabaragamuwa - Solar power system	1,500,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-F2	Sabaragamuwa - Laboratory furniture Lot 1: ICT lab furniture Lot 2: Physics lab furniture Lot 3: Chemistry lab furniture Lot 4: Mechanical and electrical lab furniture	575,550.00 100,000.00 175,550.00 200,000.00 100,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 4 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works

Goods and Works						
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments
SB-F3	Sabaragamuwa - Laboratory furniture Lot 1: Biotech and microbio lab furniture Lot 2: Pharmaceutical and bioenergy lab furniture Lot 3: Automobile lab furniture	270,000.00 100,000.00 120,000.00 50,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 3 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-F4	Sabaragamuwa - General furniture for building 1	800,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SB-F5	Sabaragamuwa - General furniture for building 2	700,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-BSW3	Sri Jayawardenepura - Library books for departments	66,987.00	RFQ	Post		No. Of Contracts: 1
SJ-E10	Sri Jayawardenepura - Laboratory equipment - mechanical engineering	298,070.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-E11	Sri Jayawardenepura - Laboratory equipment - computer engineering	309,680.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-E12	Sri Jayawardenepura - Laboratory equipment - electrical and electronics	363,575.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-E13	Sri Jayawardenepura - Laboratory maintenance equipment	191,325.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-E14	Sri Jayawardenepura - Solar and wind power equipment installation	1,600,000.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-E9	Sri Jayawardenepura - Laboratory equipment - civil engineering	583,330.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-F2	Sri Jayawardenepura - Office furniture of departments	56,400.00	RFQ	Post		No. Of Contracts: 3 Comments: L1 Civil eng \$19,230; L2 Mech eng \$27,560; L3 Electrical eng \$9,610; post-works
SJ-F3	Sri Jayawardenepura - Furniture - students and staff	444,720.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N

Goods and Works						
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments
						Bidding Document: Goods Comments: post-works
SJ-F4	Sri Jayewardenepura - wooden furniture Lot 1: Tables, chairs, etc Lot 2: Workstations, racks, etc	742,990.00 305,190.00 437,800.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 2 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works
SJ-IT2	Sri Jayewardenepura - IT equipment and software Lot 1: Civil eng IT eqpt and software Lot 2: Mech eng IT eqpt and software Lot 3: Computer eng IT eqpt and software Lot 4: Electrical and electronic eng eqpt and software Lot 5: Faculty office IT eqpt and software	926,175.00 37,820.00 60,250.00 394,615.00 59,160.00 374,330.00	OCB	Post	1S1E	Advertising Type: National No. Of Contracts: 5 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Goods Comments: post-works

Consulting Services						
Package Number	General Description	Estimated Value (in US\$)	Selection Method	Review	Type of Proposal	Comments
RJ-CS10	Rajarata - Curriculum development expert - Aquaculture and marine biology technology	11,622.00	ICS	Prior		Type: Individual Advertising: National Expertise: Aquaculture and marine biology
RJ-CS11	Rajarata - Curriculum development expert - Mechatronics	11,622.00	ICS	Prior		Type: Individual Advertising: National Expertise: Mechatronics
RJ-CS7	Rajarata - Curriculum development expert - Engineering Technology	11,622.00	ICS	Prior		Type: Individual Advertising: National Expertise: Engineering
RJ-CS8	Rajarata - Curriculum development expert - biosystems technology	11,622.00	ICS	Prior		Type: Individual Advertising: National Expertise: Biosystems
RJ-CS9	Rajarata - Curriculum development expert - agriculture technology	11,622.00	ICS	Prior		Type: Individual Advertising: National Expertise: Agriculture