

Project Administration Manual

Project Number: 38349-031

Loan Number:

November 2020

Nepal: South Asia Subregional Economic Cooperation Airport Capacity Enhancement Project

ABBREVIATIONS

ADB	–	Asian Development Bank
CAAN	–	Civil Aviation Authority of Nepal
COVID-19	–	coronavirus disease
EMP	–	environmental management plan
GBA	–	Gautam Buddha Airport
GESI	–	gender equality and social inclusion
ICAO	–	International Civil Aviation Organization
ITB	–	international terminal building
MOCTCA	–	Ministry of Culture, Tourism and Civil Aviation
MOF	–	Ministry of Finance
TIA	–	Tribhuvan International Airport

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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 in accordance with 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 Ministry of Culture, Tourism and Civil Aviation (MOCTCA) and the Civil Aviation Authority of Nepal (CAAN) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by MOCTCA and CAAN of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan agreement. 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 agreement, the provisions of the loan agreement shall prevail.

After ADB Board approval of the project's report and recommendation of the President (RRP), 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 proposed South Asia Subregional Economic Cooperation Airport Capacity Enhancement Project in Nepal will improve airport capacity at the Tribhuvan International Airport (TIA) in Kathmandu and the Gautam Buddha Airport (GBA) in Lumbini by constructing a parallel taxiway extension and hangar apron areas at TIA and a new international terminal building at GBA.
2. The project is aligned with the following impact: tourism-led economic development in Nepal enhanced (National Tourism Strategic Plan for 2016–2025).¹ The project will have the following outcome: safety, capacity, and efficiency of air travel to and/or from Nepal improved.²
3. The outputs of the project will be the following:
 - (i) **Output 1: Tribhuvan International Airport airside facilities completed in accordance with the Tribhuvan International Airport master plan.** The loan will finance the construction of TIA airside facilities, particularly the (i) parallel taxiway extension, and (ii) hangar aprons. The extension of the parallel taxiway will allow aircrafts to reach the end of the southern runway with minimal encroachment onto the main runway at TIA, thus improving safety and efficiency. The hangar area development will facilitate relocation of existing hangars with the construction of new Nepal Airline hangars catering for large aircrafts up to Airbus A330 on the east side of the runway. This will expedite implementation of the TIA master plan and enhance aviation safety.
 - (ii) **Output 2: International terminal building at Gautam Buddha Airport constructed (Terminal 2).** The new international terminal building will (i) use solar panels and energy-efficient lighting for energy self-sufficiency, and (ii) incorporate local materials and include gender equality and social inclusion (GESI) elements (e.g., nursing facilities) to make the terminal a model to emulate for airports in Nepal. The new terminal building will greatly increase international capacity at GBA, and could also serve to alleviate pressure on TIA by diverting some international flights from TIA to GBA.
 - (iii) **Output 3: Next phase of the Tribhuvan International Airport works design completed.** The loan will finance the (i) design of a new (a) international terminal building with special GESI facilities and features, located between the existing international and domestic terminal buildings, and (b) flight control tower; (ii) the redesign of the existing international terminal building to be converted into the domestic terminal building; and (iii) the exploration of options for public–private partnership participation in TIA and GBA. The next phase of works would further expand the capacity and efficiency of TIA.

¹ Ministry of Culture, Tourism, and Civil Aviation. 2016. *National Tourism Strategic Plan, 2016–2025*. Kathmandu.

² The design and monitoring framework is in [Appendix 1](#).

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 1: Project Readiness Activities

Milestone	Timeline	Responsible Agency
Concept clearance	December 2019	ADB
Start of retroactive financing period ^a	July 2020	ADB, CAAN
Start of advance contracting	July 2020	ADB, CAAN
Establish project implementation arrangements	July 2020	ADB, CAAN
Loan fact-finding	July 2020	ADB, CAAN
Quality assurance meeting	August 2020	ADB
Loan negotiations	October 2020	ADB, CAAN, MOCTCA, MOF
Board consideration	November 2020	ADB
Loan signing	December 2020	ADB, MOF
Loan effectiveness	February 2021	ADB

ADB = Asian Development Bank, CAAN = Civil Aviation Authority of Nepal, MOCTCA = Ministry of Culture, Tourism and Civil Aviation, MOF = Ministry of Finance.

^a Subject to ADB Board approval and loan signing.

Source: Asian Development Bank.

B. Overall Project Implementation Plan

Table 2: Project Implementation Plan

Indicative Activities	2020		2021				2022				2023				2024				2025				2026				
	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	
A. Design and Monitoring Framework																											
Output 1: TIA airside facilities completed in accordance with the TIA master plan																											
1.1 Award civil works contract for the airside facilities at TIA (July 2021)																											
1.2 Complete all works (December 2026)																											
Output 2. International terminal building at GBA constructed (Terminal 2)																											
2.1 Award civil works contract for the international terminal building at GBA (December 2021)																											
2.2 Complete all works (December 2026)																											
Output 3. Next phase of TIA works design completed																											
3.1 Award design consultant (December 2021)																											
B. Project Management Activities																											
Award CSC contracts for TIA and GBA (June 2021)																											
Establish project implementation units under CAAN by Q3 2020																											
Ensure counterpart fund availability by Q4 2020																											

ADB = Asian Development Bank, CAAN = Civil Aviation Authority of Nepal, CSC = construction supervision consultant, GAP = gender action plan, GBA = Gautam Buddha Airport, PIU = project implementation unit, PMU = project management unit, Q = quarter, TIA = Tribhuvan International Airport.

Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Table 3: Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Executing agency	Ministry of Culture, Tourism and Civil Aviation (MOCTCA) <ul style="list-style-type: none"> • Overall coordination of project implementation • Interagency coordination • Compliance with all loan covenants (social and environmental safeguards, financial, economic, and others) • Overseeing the performance of the implementing agency (CAAN) • Ensuring project sustainability during post-implementation stage and reporting to ADB on the assessed development impacts
Implementing agency	Civil Aviation Authority of Nepal (CAAN), through its project implementation units (Tribhuvan International Airport and Gautam Buddha Airport) <ul style="list-style-type: none"> • Day-to-day project management • Consultant recruitment and procurement of works • Preparation and submission of withdrawal applications • Maintaining project financial statements and complete loan financial records • Monitoring and evaluation of project activities and outputs, including periodic review, and preparation of review reports that reflect issues and time-bound actions taken or to be taken • Involving beneficiaries or representatives in all stages of project development and implementation • Public disclosure of project outputs • Compliance with all loan covenants (social and environmental safeguards, financial, economic, and others) • Preparation of regular periodic progress reports and project completion reports, and their timely submission to ADB
Asian Development Bank (ADB)	<ul style="list-style-type: none"> • Monitoring and review of overall implementation of the project in consultation with the executing agency and/or implementing agency, including the project implementation schedule, poverty reduction, environmental impacts, and resettlement plans • Review of all documents that require ADB approval • Ensuring timeliness of budgetary allocations and counterpart funding, project expenditures, progress with procurement and disbursement, statement of expenditures, compliance with particular loan covenants, and the likelihood of attaining the project's immediate development objectives • Conducting periodic loan review missions, a midterm review, and a completion mission

Source: Asian Development Bank.

B. Key Persons Involved in Implementation**Executing Agency**

Ministry of Culture, Tourism
and Civil Aviation (MOCTCA)

Mr. Kedar B. Adhikary
Secretary
Telephone: +977 01 4211870
Email: secretary@tourism.gov.np

Implementing Agency

Civil Aviation Authority of Nepal
(CAAN)

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Asian Development Bank

Transport and Communications
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(SATC)

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Mission Leader

Kai Wei Yeo
Senior Transport Specialist
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Email: kyeo@adb.org

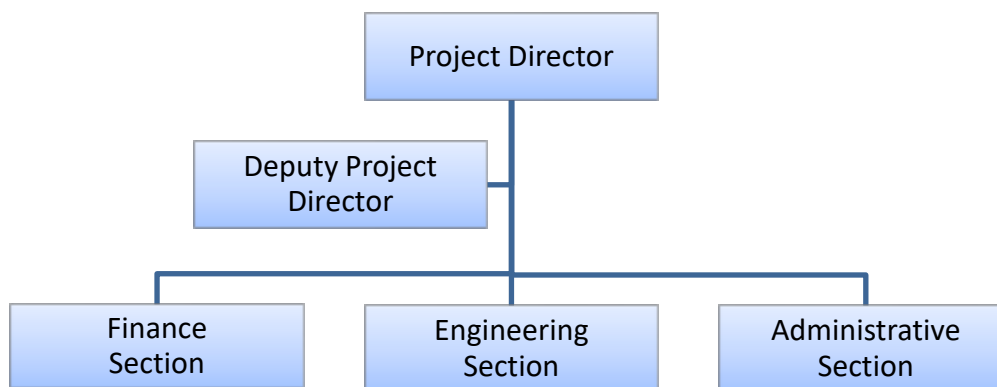
Co-Mission Leader
Nepal Resident Mission

Mr. Naresh Pradhan
Senior Project Officer (Transport)
Telephone: +977 1 400 5515
Email: npradhan@adb.org

C. Project Organization Structure

4. Figure 1 shows the reporting lines and essential internal structures of key staff involved in project implementation.

Figure 1: Project Organization Structure



Source: Asian Development Bank.

IV. COSTS AND FINANCING

5. The project is estimated to cost \$198 million, including taxes and duties for works and equipment, physical and price contingencies, and financing charges during implementation. The Asian Development Bank (ADB) will finance the expenditures in relation to works, including costs of construction, fit out and architectural works, consulting services, contingencies and financing charges during implementation, totaling 76% of the project cost. The Government of Nepal will finance 24% of the project cost, including equipment, aprons, and associated airside infrastructure of the GBA terminal building 2; operation and maintenance costs; and project management costs.

Table 4: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. TIA airside facilities completed in accordance with the master plan	98.9
2. International terminal building at GBA constructed	63.1
3. Next phase of TIA works design completed	2.7
Subtotal (A)	164.7
B. Contingencies^c	28.6
C. Financial Charges During Implementation^d	4.7
Total (A+B+C)	198.0

GBA = Gautam Buddha Airport, TIA = Tribhuvan International Airport.

^a Includes taxes and duties of \$25 million. The government will finance taxes and duties for works, equipment, consulting services, and project implementation support. Such amount does not represent an excessive share of the project cost.

^b In mid-2020 prices as of 6 July 2020.

^c Physical and price contingencies, and a provision for exchange rate fluctuation are included.

^d Includes interest on all sources of financing.

Source: Asian Development Bank estimates.

6. **Loan terms.** The government has requested a concessional loan of \$150 million from ADB's ordinary capital resources to help finance the project. The loan will have a 32-year term, including a grace period of 8 years; an interest rate of 1.0% per year during the grace period and 1.5% per year thereafter; and such other terms and conditions set forth in the draft loan and project agreements.

7. **Financing plan.** The financing plan is in Table 5.

Table 5: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (concessional loan)	150.0	76.0
Government	48.0	24.0
Total	198.0	100.0

Source: Asian Development Bank estimates.

A. Cost Estimates Preparation and Revisions

8. Cost estimates were prepared by the Civil Aviation Authority of Nepal (CAAN). The cost estimates were based on mid-2020 prices. During implementation, the schedule of rates (if any), along with the then current normalized bid rates, will be updated by CAAN on an annual basis, and used for assessing project estimates and bid responses.

B. Key Assumptions

9. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: NRs120.89 = \$1.00 (as of 27 June 2020).
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 6: Escalation Rates for Price Contingency Calculation
(%)

Item	2021	2022	2023	2024	2025	2026	Average
Foreign rate of price inflation	1.6	1.7	1.7	1.8	1.8	1.8	1.7
Domestic rate of price inflation	5.5	6.0	7.0	7.0	7.0	7.0	6.6

Source: Asian Development Bank estimates.

C. Detailed Cost Estimates by Expenditure Category

Table 7: Cost Estimates by Expenditure Category
(\$ million)

Item	Total Cost	% of Total Base Cost
A. Investment Costs		
1. Civil and building works	145.00	73.22
2. Land acquisition and resettlement	2.00	1.01
3. Consultants	9.90	5.00
Subtotal (A)	156.90	79.22
B. Recurrent Costs		
1. Salaries	7.95	3.96

Item	Total Cost	% of Total Base Cost
Subtotal (B)	7.95	3.96
Total Base Cost (A+B)	164.75	83.19
C. Contingencies		
1. Physical	7.30	3.69
2. Price	21.30	10.76
Subtotal (C)	28.60	14.44
D. Financial Charges During Implementation		
1. Interest during construction	4.70	2.37
Subtotal (D)	4.70	2.37
Total Project Cost (A+B+C+D)	198.00	100.00

GBA = Gautam Buddha Airport, TIA = Tribhuvan International Airport.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

D. Allocation and Withdrawal of Loan Proceeds

10. Table 8 summarizes the allocation and withdrawal of loan proceeds for ADB financing.

Table 8: Allocation and Withdrawal of Loan Proceeds
(\$ million)

No.	Item	Total Amount Allocated for ADB Financing		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1.	Civil and building works	113,100,000		78% of total expenditure claimed
2.	Consultants	9,900,000		
	2a. Construction Supervision Consultant & Individual Consultants		7,200,000	100% of total expenditure claimed*
	2b. TIA Next Phase Design		2,700,000	100% of total expenditure claimed*
3.	Interest	4,700,000		100% of amount due
4.	Unallocated	22,300,000		
	Total	150,000,000		

ADB = Asian Development Bank.

* exclusive of taxes and duties

Source: Asian Development Bank estimates.

E. Detailed Cost Estimates by Financier

Table 9: Cost Estimates by Financier
(\$ million)

Item	ADB (COL)		GON		Total
	Amount (A)	% of Cost Category (A/C)	Amount (B)	% of Cost Category (B/C)	Amount (C)
A. Investment Costs					
1. Civil and building works	113.10	78.0	31.90	22.0	145.00
2. Land acquisition and resettlement	-	-	2.00	100.0	2.00
3. Consultants	11.90	100.0	-	-	11.90
Subtotal (A)	125.00	78.7	33.90	21.3	158.90
B. Recurrent Costs					
1. Salaries	-	-	7.95	100.0	7.95
Subtotal (B)	-	-	7.95	100.0	7.95
Total Base Cost (A+B)	125.00	74.9	41.85	25.1	166.85
C. Contingencies					
1. Physical	5.70	78.0	1.60	22.0	7.30
2. Price	16.60	78.0	4.70	22.0	21.30
Subtotal (C)	22.30	78.0	6.30	22.0	28.60
D. Financial Charges During Implementation					
1. Interest during construction	4.70	100.0	-	-	4.70
Subtotal (D)	4.70	100.0	-	-	4.70
Total Project Cost (A+B+C+D)	150.00	75.7	48.0	24.3	198.00

ADB = Asian Development Bank, COL = concessional ordinary lending, GON = Government of Nepal.

Note: Numbers may not sum precisely because of rounding. Taxes and duties are included in the investment costs.

Source: Asian Development Bank estimates.

F. Detailed Cost Estimates by Outputs and/or Components

Table 10: Cost Estimates by Outputs
(\$ million)

Item	Total Cost	Output 1 ^a		Output 2 ^b		Output 3 ^c	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. Investment Costs							
1. Civil and building works				-	-	-	-
a. Parallel taxiway	41.00	41.00	100.00	-	-	-	-
b. Hangar aprons	46.00	46.00	100.00	-	-	-	-
c. GBA terminal building	58.00	-	-	58.00	100.00	-	-
2. Land acquisition and resettlement	2.00	1.40	70.00	0.60	30.00	-	-
3. Consultants							
a. TIA construction supervision consultant	6.50	4.55	70.00	1.95	30	-	-
b. TIA next phase design consultant	2.70	-	-	-	-	2.70	100.00
c. Individual consultants	0.70	0.49	70.00	0.21	30	-	-
Subtotal (A)	156.90	93.44	59.55	60.76	38.72	2.70	1.72
B. Recurrent Costs							
1. Salaries	7.85	5.49	70.00	2.35	30.00	-	-
Subtotal (B)	7.85	5.49	70.00	2.35	30.00	-	-
Total Base Cost (A+B)	164.75	98.93	60.10	63.11	38.30	2.70	1.64
C. Contingencies							
1. Physical	7.30	5.11	70.00	2.19	30.00	-	-
2. Price	21.30	14.91	70.00	6.39	30.00	-	-
Subtotal (C)	28.60	20.20	70.00	8.58	30.00	-	-
D. Financial Charges During Implementation							
1. Interest during construction	4.70	3.29	70.00	1.41	30.00	-	-
Subtotal (D)	4.70	3.29	70.00	1.41	30.00	-	-
Total Project Cost (A+B+C+D)	198.00	122.24	61.72	73.10	36.91	2.70	1.36

GBA = Gautam Buddha Airport, TIA = Tribhuvan International Airport.

Note: Numbers may not sum precisely because of rounding.

^a Output 1: TIA airside works.

^b Output 2: GBA terminal building.

^c Output 3: TIA next phase design.

Source: Asian Development Bank estimates.

G. Detailed Cost Estimates by Year

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

Item	Total Cost	2021	2022	2023	2024	2025	2026	2027
A. Investment Costs								
1. Civil and building works	145.00	0.00	11.60	26.10	33.35	39.15	26.10	8.70
2. Land acquisition and resettlement	2.00	0.20	0.40	0.60	0.40	0.40	-	-
3. Consultants	9.90	0.99	1.49	1.49	1.49	1.49	1.49	1.49
Subtotal (A)	156.90	1.19	13.49	28.19	35.24	41.04	27.59	10.19
B. Recurrent Costs								
1. Salaries	7.95	0.79	1.19	1.19	1.19	1.19	1.19	1.19
Subtotal (B)	7.95	0.79	1.19	1.19	1.19	1.19	1.19	1.19
Total Base Cost (A+B)	166.85	2.18	14.98	29.68	36.73	42.53	29.08	11.68
C. Contingencies								
1. Physical	7.30	0.37	0.73	0.73	1.10	1.10	1.46	1.83
2. Price ^a	21.30	1.07	2.13	2.13	3.20	3.20	4.26	5.33
Subtotal (C)	28.60	1.43	2.86	2.86	4.29	4.29	5.72	7.15
D. Financial Charges During Implementation								
1. Interest during construction	4.70	0.00	0.38	0.85	1.08	1.27	0.85	0.28
Subtotal (D)	4.70	0.00	0.38	0.85	1.08	1.27	0.85	0.28
Total Project Cost (A+B+C+D)	198.00	3.40	17.90	33.07	41.78	47.77	35.33	18.79
% Total Project Cost	100.00	1.87	9.04	16.70	21.10	24.13	17.84	9.49

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

H. Contract and Disbursement S-Curve

11. The following figure and table show expected contract awards and disbursements for the allocated amounts for ADB financing over the life of the project.

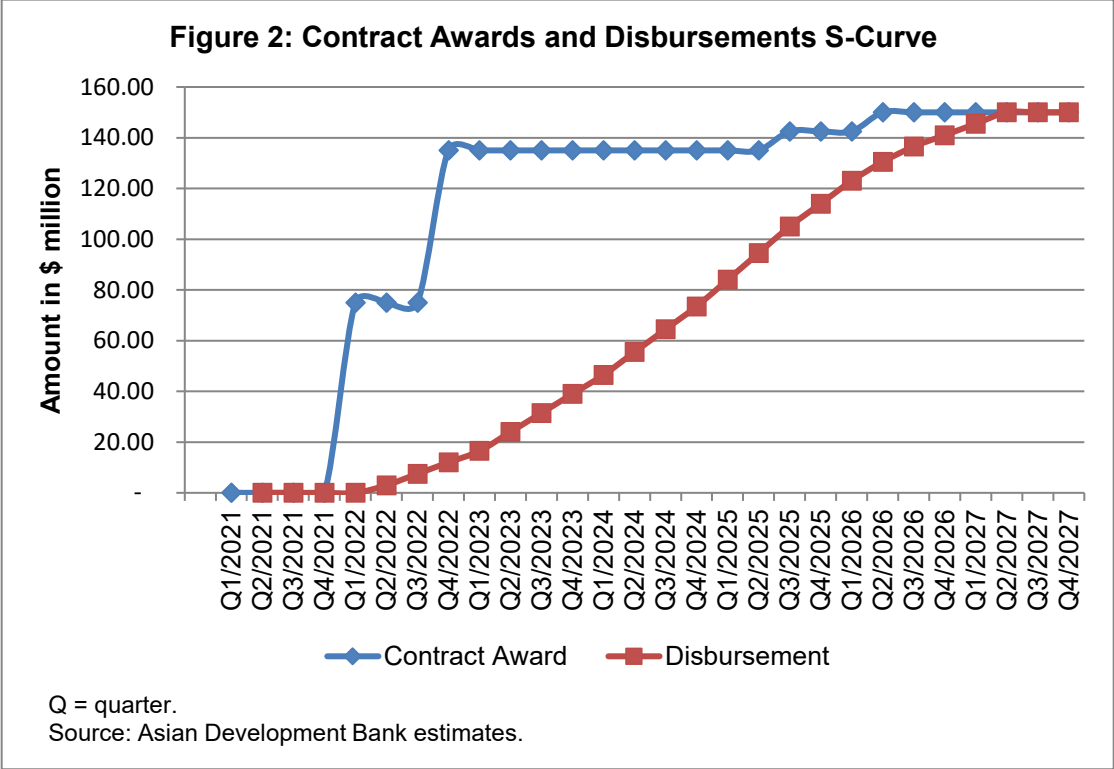


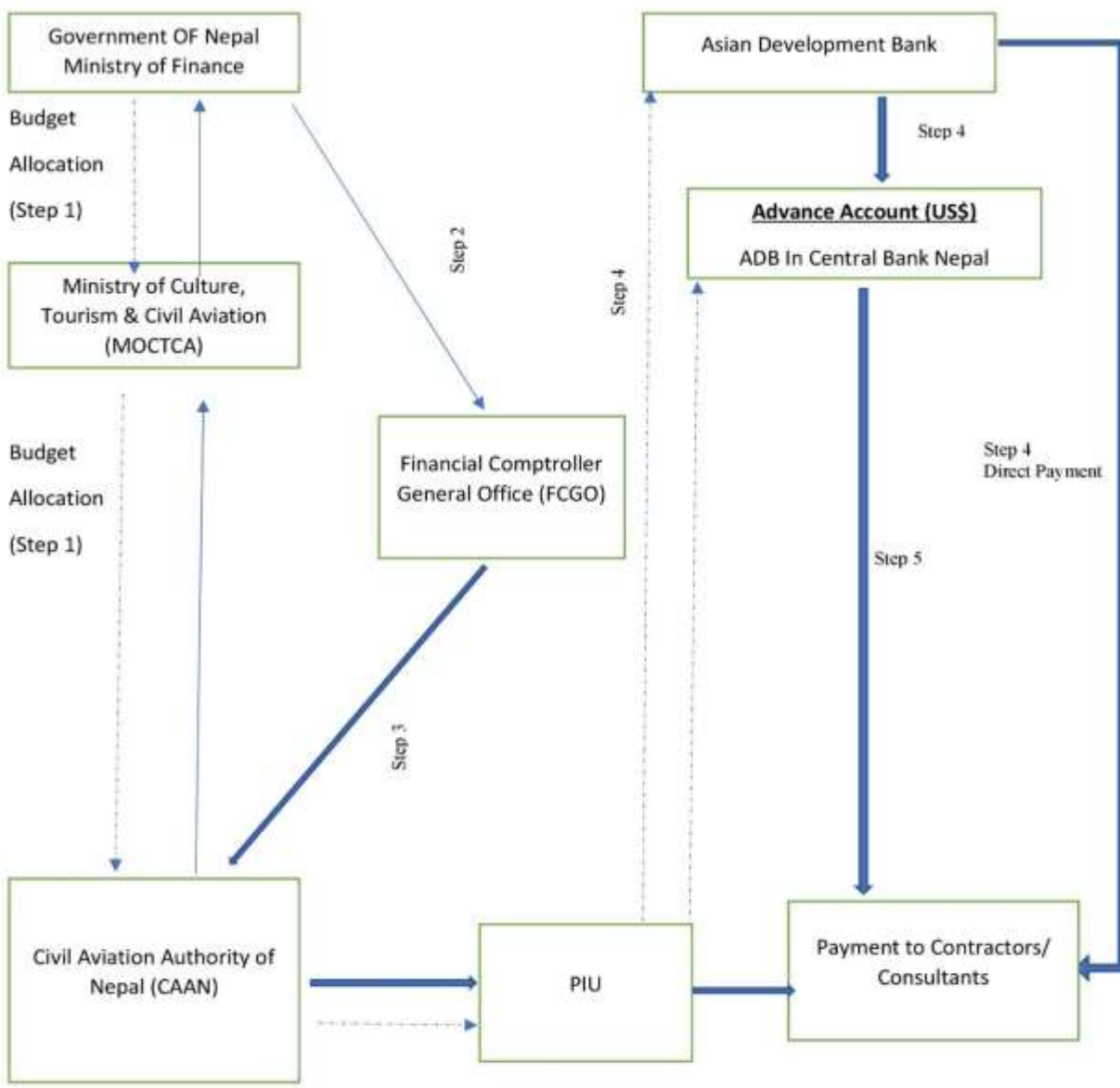
Table 12: Quarterly Contract Awards and Disbursements
(\$ million)

Year	Contract Awards						Disbursements					
	Q1	Q2	Q3	Q4	Total	Cum.	Q1	Q2	Q3	Q4	Total	Cum.
2021	-	-	-	-	-	-	-	-	-	-	-	-
2022	75.0	-	-	60.0	135.0	135.0	-	3.0	4.5	4.5	12.00	12.0
2023	-	-	-	-	-	135.0	4.5	7.5	7.5	7.5	27.0	39.0
2024	-	-	-	-	-	135.0	7.5	9.0	9.0	9.0	34.5	73.5
2025	-	-	7.50	-	7.50	142.5	10.5	10.5	10.5	9.0	40.5	114.0
2026	-	7.50	-	-	7.50	150.0	9.0	7.5	6.0	4.5	27.0	141.0
2027	-	-	-	-	-	150.0	4.5	4.5	-	-	9.0	150.0

Cum. = cumulative, Q = quarter.
Source: Asian Development Bank estimates.

I. Fund Flow Diagram

Figure 3: Fund Flow Procedure of the Project



- - - - -> Documents Flow,
- > Request for Payment from Counterpart Fund (GON Share)
- > Fund Flow

Step 1: Budget Allocation; Step 2: Budget Release; Step 3: Counterpart Fund Payment; Step 4: WA application for Payment from ADB for Direct payment, Replenishment to Advance Account and Reimbursement to Government Account; Step 5: Payment from Account.

ADB = Asian Development Bank, GON = Government of Nepal, PIU = project implementation unit, WA = withdrawal application.
 Source: Asian Development Bank.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

12. The financial management assessment (FMA) was conducted in June 2020 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. This FMA also considered the financial management assessment of CAAN carried out in November 2009 for the Air Transport Capacity Enhancement Project, and updated that assessment, where applicable.³ The FMA considered the capacity of CAAN, including fund-flow arrangements, budgeting, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. CAAN was assessed from a financial management perspective to have reasonable capacity to handle the proposed project. CAAN has experience in implementing ADB-funded projects; accounting and finance functions at entity and project levels are adequately staffed; entity-level financial statements are prepared in accordance with the Nepal Financial Reporting Standards (NFRS); and project financial statements are received generally on time. The key financial management risks identified are (i) the internal audit function is weak; (ii) project quarterly reports need to be strengthened by incorporating financial and disbursement reports; (iii) persistent qualified audit opinions on entity-level financial statements of CAAN and delays in finalization of audited entity financial statements for FY2018 and FY2019; and (iv) human resource capacity needs to be supplemented by giving training on ADB financial management requirements and disbursement procedures. It is concluded that the overall pre-mitigation financial management risk of CAAN is *moderate* with appropriate risk mitigation measures identified. Details of risks and key mitigating measures are in Table 13.

Table 13: Financial Management and Internal Control Risk Assessment

Risk	Risk Assessment and Risk Description	Mitigation Measures or Action Plans
Inherent Risk		
1. Country-specific	<p style="text-align: center;">S</p> <p>Weak governance and limited absorption capacity of government departments for capital expenditure and adequacy of operations and maintenance budget</p>	<ul style="list-style-type: none"> The Government of Nepal has initiated public financial management and public procurement reforms at the national and local levels. The Asian Development Bank (ADB) will assist with these in conjunction with other development partners. Projects will include measures to mitigate fiduciary risks while ensuring accountability and transparency. ADB will collaborate with other partners to strengthen the capacity of integrity institutions such as the Commission for the Investigation of Abuse of Authority and National Vigilance Centre. Close monitoring of activities will reduce the country-specific risk in the project.
2. Entity-specific	<p style="text-align: center;">M</p> <p>Limited experience of Civil Aviation Authority of Nepal (CAAN) to implement ADB-financed projects</p> <p>Delays in finalization of</p>	<ul style="list-style-type: none"> The CAAN is an autonomous body under the Ministry of Culture, Tourism and Civil Aviation (MOCTCA), a line ministry under the government. MOCTCA has experience in executing ADB-funded projects and implementing World Bank-funded projects. CAAN's financial staff who has implemented ADB-financed projects in the past will assist in the preparation of financial statements. CAAN's audited entity financial statements in fiscal year

³ ADB. 2009. [Report and Recommendations of the President to the Board of Directors: Proposed Loan and Asian Development Fund Grant to Nepal for Air Transport Capacity Enhancement Project](#). Manila.

Risk	Risk Assessment and Risk Description	Mitigation Measures or Action Plans
	audited entity financial statements of CAAN and qualified audit opinions	(FY) 2016 were delayed due to the adoption of the Nepal Financial Reporting Standards (NFRS). CAAN has committed to expedite the backlog and will prepare the audited entity financial statements on timely basis. A comprehensive action plan is to be submitted by CAAN for addressing audit qualifications. Some specific actions are also included in the financial management action plan to address audit qualification and to improve overall entity financial management.
3. Project-specific	L There are no project-specific risks in this project.	Not applicable.
Overall Inherent Risk	M	
Control Risk		
1. Implementing entity	L CAAN has implemented ADB-funded projects in the past.	<ul style="list-style-type: none"> CAAN will implement the project and the financial management action plan as described in Table 14.
2. Fund flow	M Delay in release of funds	<ul style="list-style-type: none"> ADB's disbursement will follow direct payment, reimbursement, and replenishment procedures. All withdrawal applications will be prepared by CAAN and all supporting documents will be kept centrally. MOCTCA and the Financial Comptroller General Office will ensure with the Ministry of Finance the provision of sufficient budget for the counterpart fund and the release of the replenishment of funds received from ADB in a timely manner.
3. Staffing	M Lack of experience in ADB procedures and requirements	<ul style="list-style-type: none"> The capacity of CAAN should be strengthened through trainings on ADB policies and procedures. Trained staff should be kept until the end of the project.
4. Accounting policies and procedures	M Lack of well-documented and detailed policies and procedures	<ul style="list-style-type: none"> CAAN is using financial administration rules to manage its financial procedures. This manual is based on existing government policies and procedures. CAAN is using double-entry accrual basis of accounting and is preparing its financial statements in compliance with the NFRS. A detailed policies and procedures manual for improved financial management of CAAN is required.
5. Internal audit	S Internal audit function generally weak	<ul style="list-style-type: none"> There is an internal audit section in CAAN that conducts internal audit on a need basis. The internal audit to be carried out for the proposed project is on a semi-annual basis.
6. External audit	S Timely completion of the external audit function and submission of the audit report	<ul style="list-style-type: none"> Auditor General has the constitutional mandate to conduct external audits of donor-funded projects. Annual project audit reports are to be produced within 9 months of the end of the financial year. The entity-level audit reports for FY2017–2018 and FY2018–2019 are overdue. Observations on the previous audit report need to be addressed as mentioned in the financial management

Risk	Risk Assessment and Risk Description	Mitigation Measures or Action Plans
		action plan.
7. Reporting and monitoring	M Frequency and timeliness of periodic financial reporting require strengthening	<ul style="list-style-type: none"> CAAN will issue quarterly financial reports within 45 days after the reporting period in a format agreed with ADB, including physical versus financial progress and disbursement reports.
8. Information systems	S Information systems not used optimally	<ul style="list-style-type: none"> CAAN is using a customized integrated software including a financial management information system in addition to the existing use of spreadsheet, as and when required.
Overall Control Risk	M	

H – High, S-substantial, M – Moderate, L – Low.

Sources: Asian Development Bank and Civil Aviation Authority of Nepal.

13. CAAN has agreed to implement an action plan as a key measure to address deficiencies. The financial management action plan, which should be reviewed and updated throughout the life of the project, is provided in Table 14.

Table 14: Financial Management Action Plan

Key Risks and Agreed Actions	Responsibility	Timeframe
1. Accounting procedures manual to be developed, including a separate chapter on ADB financial management and reporting requirements and a chart of accounts for ADB project accounting TORs of internal auditors to include monitoring compliance with requirements of the manual	CAAN	By December 2020
2. Training on ADB policies and procedures to be provided for newly recruited staff	ADB	Before loan effectiveness
3. Timely budgetary release and provision of ADB portion and counterpart funds to be ensured; appropriate budget allocations in GON's budget and timely release of funds need to be ensured	CAAN	Throughout the project period
4. Internal audit of the project to be conducted semi-annually and reports to be submitted to the Audit Committee	CAAN	Throughout the life of the project
5. Completion and submission of Statutory Audit Report for FY2018 and FY2019	CAAN	FY2018–By 31 August 2020 FY2019–By 30 June 2021
6. Prepare comprehensive plan containing specific and time-bound actions to resolve audit qualifications on the financial statements of CAAN. The plan should be approved by CAAN management and board, and preferably endorsed by OAG. Submit the approved action plan for resolution of CAAN audit qualifications to ADB.	CAAN	Before loan effectiveness
7. Preparation of a comprehensive fixed assets register in compliance with requirements of government rules and regulations and NFRS	CAAN	By July 2021
8. Physical verification of fixed assets of CAAN	CAAN	By July 2021
9. Perform reconciliation for receivable and payable balances with the GON. Incorporate reconciled amounts in the financial statements by making	CAAN	FY2021 financial statements of CAAN to reflect reconciled balances

Key Risks and Agreed Actions	Responsibility	Timeframe
necessary accounting adjustments.		
10. Perform reconciliation of balances between CAAN HQ and field offices. Incorporate reconciled amounts in the financial statements by making necessary accounting adjustments.	CAAN	FY2021 financial statements of CAAN to reflect reconciled balances
11. Perform reconciliation and verification of bank balances at field offices.	CAAN	By July 2021 and throughout the life of the project
12. All project records and supporting documents filed centrally, backed up regularly, and made available for auditors and ADB for inspection staff as necessary	CAAN	Throughout the life of the project
13. Issue quarterly progress reports with financial and disbursement reports in a format acceptable to ADB; submit to ADB within 45 days after the end of the reporting period.	CAAN	Throughout the life of the project
14. Proactive use of ADB's LFIS as well as national systems to track withdrawal applications and reconcile ADB and project records. Follow up of any discrepancies	CAAN	Throughout the life of the project
15. Timely submission of APFS and resolution of audit findings to be ensured	CAAN	Within 9 months after FY end
16. Timely submission of AEFS to be ensured	CAAN	Within 1 month from approval by the relevant authority but encouraged to submit not later than one year from end of FY

ADB = Asian Development Bank, AEFS = audited entity financial statements, APFS = audited project financial statement, CAAN = Civil Aviation Authority of Nepal, FMIS = financial management information system, FY = fiscal year, GON = Government of Nepal, HQ = headquarters, LFIS = loan and financial information system, NFRS = Nepal Financial Reporting Standards, OAG = Office of the Auditor General, TOR = terms of reference.

Source: Asian Development Bank.

14. To ensure effective and timely implementation of the financial management action plan, CAAN is required to review the progress made against each agreed action on a quarterly basis. In addition, ADB review missions will review and verify the status of the financial management risks and the financial management action plan on an annual basis and suggest remedial measures, as appropriate.

B. Disbursement

1. Disbursement Arrangements for ADB Funds

15. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time), and detailed arrangements agreed upon between the government and ADB.⁴ Online training for project staff on disbursement policies and procedures is available.⁵ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

⁴ The handbook is available electronically from the ADB website. <http://www.adb.org/documents/loan-disbursement-handbook>.

⁵ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning.

16. CAAN will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, (iv) managing the advance account, and (v) preparing and sending withdrawal applications to ADB for replenishing the advance account and making payments to the contractors. Contractors and consultants will be primarily paid through the advance account procedure, with direct payment for larger payments.

17. **Advance fund procedure.** Immediately after loan effectiveness, CAAN will establish an advance account for the loan at the Nepal Rastra Bank. The currency of the advance account is the United States dollar. The advance account is to be used exclusively for ADB's share of eligible expenditures. The implementing agency, CAAN, which administers the advance account, is accountable and responsible for proper use of advances to the advance account.

18. The total outstanding advance to the advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming 6 months. CAAN may request for initial and additional advances to the advance account based on an estimate of expenditure sheet setting out the estimated expenditures to be financed through the account for the forthcoming 6 months.⁶ For every liquidation and replenishment request of the advance account, the borrower will furnish to ADB (i) a statement of account (bank statement) issued by the bank where the advance account is maintained, and (ii) the advance account reconciliation statement reconciling the abovementioned bank statement against the records of the Ministry of Finance. Supporting documents should be submitted to ADB or retained by CAAN in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

19. **Statement of expenditure procedure (SOE).** The SOE procedure will be used for reimbursement of eligible expenditures or liquidation of advances to the advance account up to \$200,000.⁷ Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

20. Before the submission of 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. The minimum value per withdrawal application is stipulated in ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by CAAN and subsequently claimed to ADB through reimbursement, or (ii) through the direct payment method procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements system is encouraged for submission of withdrawal applications to ADB.⁸

⁶ The estimate of expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

⁷ Statement of expenditure forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

⁸ The Client Portal for Disbursements facilitates online submission of withdrawal application to ADB, resulting in faster disbursement. The forms to be completed by the borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

2. Disbursement Arrangements for Counterpart Fund

21. All disbursements under government financing will be carried out in accordance with the regulations of the Government of Nepal and accounting principles acceptable to ADB. Payments on counterpart fund are made by the Financial Comptroller General Office (FCGO) on the request of CAAN. CAAN keeps all required invoices and documents and will have the stamp of "Paid" on those documents. The signatories to the bank account are the Project Director and Account Chief. CAAN has maintained up-to-date cash book recording, receipts and payments records, and timely deposits of receipts. CAAN's customized accounting software on financial management information system (FMIS) has the features of recording all government transactions and generating mandatory reporting requirements. In addition, as per government requirement, the government transactions are recorded in the computerized government accounting software. There is no integration of these two softwares and they do not capture the direct payment and payments from the advance account. Payment entries are to be reconciled manually using spreadsheet. Government procedures will be followed to safeguard and protect assets from fraud, waste, and abuse. Physical verification of fixed assets will be undertaken during annual audit.

C. Accounting

22. CAAN will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following cash basis double-entry accounting system. CAAN will prepare project financial statements in accordance with the Nepal Public Sector Accounting Standards cash basis of accounting and the Government of Nepal's accounting policies that are consistent with international accounting principles. Project financial statements shall include all expenditures incurred under the project, including loans and government counterpart funds.

D. Auditing and Public Disclosure

23. CAAN will cause the detailed project financial statements to be audited by the Office of the Auditor General (OAG) in accordance with the fundamental auditing principles of the International Organization of Supreme Audit Institutions. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 9 months from the end of the fiscal year by CAAN. The annual project financial statements should include withdrawal application wise reconciliation between the amounts reported in the project financial statements and the disbursement amounts appearing in the Loan Financial Information System (LFIS) of ADB. The LFIS can be accessed online and ADB will provide LFIS access to project staff on request.

24. The audited entity financial statements, together with the auditor's report and management letter, if any, will be submitted in the English language to ADB within 1 month after their approval by the relevant authority. CAAN is strongly encouraged to submit audited entity financial statements not later than 1 year from the end of the fiscal year.

25. The audit report for the project financial statements will include a management letter (or a written confirmation from auditors that no management letter was issued) and auditor's opinions, which cover (i) whether the 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; and (ii) whether the proceeds of the loan were used only for the purposes of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants

contained in the legal agreements. CAAN shall prepare the computations demonstrating compliance with the financial ratios as defined in the legal agreements (where applicable) every year, as part of its entity financial reporting. The auditors will provide an additional opinion on the achievement of the financial ratios (where applicable) under relevant auditing standards applicable in Nepal.

26. 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.

27. The government, MOCTCA, and CAAN have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.⁹ ADB reserves the right to follow up audit (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 in accordance with ADB's policies and procedures.

28. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to Information Policy.¹⁰ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹¹

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

29. All advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).¹² The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, MOCTCA, and CAAN have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

⁹ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received 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 disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. 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.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

¹⁰ Access to Information Policy. <https://www.adb.org/documents/access-information-policy>.

¹¹ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2018. *Access to Information Policy*. Paragraphs 16 and/or 17.

¹² ADB. 2017. *ADB Procurement Policy: Goods, Works, Nonconsulting and Consulting Services*. Manila; and ADB. 2017. *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services*. Manila.

30. **Advance contracting.** Activities to be concluded in advance include the procurement of two civil works contracts and the recruitment of a construction supervision consulting firm.

B. Procurement of Goods, Works, and Consulting Services

31. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time) (footnote 11).

32. **Value for money.** Optimization for value for money has been sought through strategic procurement planning and risk-managed approach, as follows:

- (i) The procurement plan has been developed considering the project's needs and objectives.
- (ii) Procurement of works contracts has been done through open competitive bidding, with international advertisement.
- (iii) To ensure high quality design and construction supervision consulting services, international advertisement with quality–cost ratio of 90:10 has been applied.
- (iv) Considering subproject readiness and similarity in works' nature, two out of three works contract packages are being procured using multiple-contracts bidding.
- (v) Packaging of works contracts is based on robust market analysis. All the works contract packages have been sized above \$40 million to attract eligible bidders from the international market. This is expected to result in highly competitive bidding.
- (vi) Requirements of technical specifications are aligned with the project objectives. The project applies international design standards, proven technology, resilience against natural disasters and climate change, including solar panels, energy-efficient lighting, and local materials.
- (vii) Evaluation criteria being applied consider essential conditions to ensure bidders' capability and resources to successfully perform the contracts.
- (viii) Following standard industrial practice in Nepal, procurement is being done through single-stage two-envelope procedure.
- (ix) The International Federation of Consulting Engineers (FIDIC) MDB 2010 standards for contracts are being applied for procurement of works, considering that design works are done by the employer.
- (x) All the contracts are being procured following prior review procedure to avoid any risks of noncompliance in the procurement process.
- (xi) To encourage the development of domestic contracting, domestic preference is being applied in procuring construction contracts.
- (xii) To address the issue of abnormally low and/or unbalanced bids, provisions have been made to require higher percentage of performance security for such bids.
- (xiii) To ensure transparency of the process, a 14-day standstill period is applied, in compliance with Nepal's public procurement regulations.
- (xiv) In case of a joint venture contractor, contractual provisions to ensure the leading role of the joint venture leader, have been introduced.
- (xv) To enhance smooth cash flow under each contract, advance payment provisions of as much as 20% of the accepted contract amount in installments, and with the provision of advance payment security, have been introduced, which will be paid in installments.
- (xvi) To address the issue of delay in execution and implementation of construction contracts, incentives (bonus) for early completion are being introduced in the

contracts.

33. Open competitive bidding procedures will be used for all three civil works packages estimated to cost \$175 million with provision for domestic preference. Domestic contractors will be encouraged to participate as joint venture partners or subcontractors.

34. All procurement activities will be the responsibility of the project director of the project implementation unit, who will be supported by their staff and consultants. ADB will closely monitor all major project implementation activities. Civil works contracts will comprise three open competitive bidding packages for the (i) extension of the parallel taxiway to connect Runway-02 end at TIA and associated works, (ii) hangar area development at the east side of the runway at TIA and associated works, and (iii) construction of terminal 2 at GBA.

35. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Attachment A (Procurement Plan).

36. All consultants will be recruited according to ADB's Procurement Regulations (2017, as amended from time to time).¹³ The terms of reference for all consulting services are detailed in Attachments C to E.

37. **Construction supervision consultant.** A firm of international consultants in association with domestic consultants will assist CAAN in implementing the project by (i) providing project management assistance, (ii) carrying out expeditious review of designs, (iii) supervising and administering works contracts, (iv) preparing a project performance management system, and (v) reporting and documenting progress of works. About 90 person-months for international consultant services and 625 person-months for national consultant services will be required. The consulting firm will be engaged using the quality- and cost-based selection method with a standard quality–cost ratio of 90:10.

38. **Individual consultant services.** Individual international and national consultants will also be engaged through individual consultant selection for environmental and social safeguard monitoring report preparation; contract management; and project management support. About 6 person-months of international consultant services and 36 person-months of national consultant services will be required.

39. **Next phase design consultant.** A second firm of international consultants will be recruited to (i) review the current master plan of TIA, (ii) carry out detailed engineering design and preparation of bidding documents for procurement of works and equipment, and (iii) assist CAAN to undertake public–private partnership in the air transport sector. About 37 person-months of international consultant services and 60 person-months of national consultant services will be required. The consulting firm will be engaged using the quality- and cost-based selection method with a standard quality–cost ratio of 90:10.

C. Procurement Plan

40. The procurement plan is in Attachment A and describes all procurement of works and consulting services.

¹³ Checklists for actions required to contract consultants by method are available in e-Handbook on Project Implementation at <http://www.adb.org/documents/handbooks/project-implementation/>.

D. Consultants' Terms of Reference

41. The consultants' terms of reference are provided in the following attachments:
- (i) Attachment C: Terms of Reference for Construction Supervision Consultant
 - (ii) Attachment D: Outline Terms of Reference for Environment Expert, Social Development Expert, Contract Management Expert, and Project Management Specialist
 - (iii) Attachment E: Terms of Reference for Next Phase Design Consultant

VII. SAFEGUARDS

42. The project is categorized *B* for environment in accordance with ADB's Safeguard Policy Statement. The project involves the construction of parallel taxiway and hangar aprons in TIA and a new international terminal building in GBA. There are no critical habitats nor cultural heritage sites that will be affected. Low to medium adverse environmental impacts are expected arising from the civil works in the two airports, but the impacts are localized and reversible, and mitigating measures have been proposed. An initial environmental examination was prepared for each site, incorporating an environmental management plan (EMP) to manage adverse impacts identified. The EMP, which adheres to national guidelines of Nepal, World Health Organization guidelines, and ADB guidance documents, identified (i) the mitigating measures for all major environmental impacts in all phases of the project, (ii) the responsible entities to implement and monitor the mitigating measures, and (iii) the cost of implementing proposed measures. The EMP also includes a health and safety plan to minimize the impacts of the coronavirus disease (COVID-19) pandemic. Likewise, the EMP outlines the institutional arrangement on specific responsibilities of different parties regarding environmental management and monitoring. In addition, the environmental monitoring plan was prepared for each project site to monitor various environmental parameters (air and water quality; noise and vibration; community and occupational health and safety issues; flora and fauna; etc.). CAAN, as the implementing agency, will submit to ADB semiannual environmental monitoring reports during the construction phase, and an annual environmental monitoring report during the operation phase, and track the environmental management implementation of the project.

43. The project is categorized *C* for involuntary resettlement and *C* for indigenous people. The TIA project activities will not involve any involuntary acquisition of land as all work will be undertaken within the existing premises of the airport. The construction of the new GBA terminal has required the acquisition of 25.76 hectares comprising 482 parcels of land belonging to 84 landowners and 3 industry and business entities. Of these owners, only Lumbini Distillery, which owns a parcel of 2.78 hectares, has yet to receive the agreed compensation. A due diligence has been undertaken to assess the consistency in the method and compensation of land with the applicable laws and standards. The due diligence report summarizes project activities, land acquisition impacts, compensation standards, and corrective actions to ensure all pending activities, including those related to previous land acquisition, are fully implemented. These corrective actions are time-bound and shall be monitored until satisfactory completion. The project activities in both TIA and GBA will have unlikely impacts on indigenous people's groups, as defined under the ADB Safeguard Policy Statement. Adequate consultations and disclosure were undertaken to ensure relevant project information were properly communicated to households and broader communities of various ethnicity around the project. During construction, consultations with the broader community shall continue to ensure that any issues and concerns raised can be adequately addressed.

44. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

VIII. GENDER AND SOCIAL DIMENSIONS

45. **Gender.** The proposed project will benefit from the International Civil Aviation Organization (ICAO) commitments in its resolution on the ICAO Gender Equality Programme Promoting Participation of Women in the Global Aviation Sector, which included enhancing gender equality by 2030 at all professional and higher levels of employment in the sector, particularly in the TIA and GBA. These commitments will be realized by incorporating GESI elements to be implemented across existing and new civil aviation infrastructure in TIA and GBA, making such infrastructures responsive, universally accessible, and safe for the elderly, women, transgender, and children. CAAN, through its dedicated Project Directorate, will carry out the operationalization of these design elements. The project is categorized *some gender elements*.

46. **Public health and safety.** The project aims to promote public health and safety by ensuring the prevention of non-safeguard-related risks during the construction and operations of the project, such as on sexually transmitted infections (HIV-AIDS), COVID-19, human trafficking, sexual harassment, exploitation, and abuse. Labor camps during project construction will have regular orientation on these issues. The staff of CAAN, related offices, and contractors will also undergo orientation so that prevention and management of all social risks will be adequately handled.

47. **Labor standards.** CAAN and its contractors shall ensure that the works contracts under the project follow all applicable labor laws of the Government of Nepal and that these further include provisions to the effect that contractors will (i) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work, respectful workplace), health, safety, welfare, sanitation, working conditions, and compliance with national requirements for COVID-19 prevention. Strict compliance by contractors will be monitored. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors. There will be routine orientation for all contractors, including laborers, on national core labor standards with special focus on gender equality in wages, health, safety, and hygiene issues on the work site.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

48. The design and monitoring framework (DMF) is in Attachment B.

B. Monitoring

49. **Project performance monitoring.** The achievement of the project performance targets will be assessed following the design and monitoring framework. CAAN through the construction supervision consultant (CSC) will establish a project performance management system. Disaggregated baseline data for output and outcome indicators gathered during project processing will be updated and reported quarterly through CAAN's quarterly progress reports and after each ADB review mission. These quarterly reports will provide information necessary to

update ADB's project performance reporting system.¹⁴

50. **Compliance monitoring.** Compliance with covenants will be monitored through ADB's project administration missions, including the (i) project inception mission to discuss and confirm the timetable for compliance with the loan covenants; (ii) project review missions to review the borrower's compliance with particular loan covenants and, where there is any noncompliance or delay, discuss proposed remedial measures with the government; and (iii) midterm review mission to assess whether covenants are still relevant or need to be changed or waived due to changing circumstances.

51. **Safeguards monitoring.** The corrective actions as itemized in the initial environmental examination and the due diligence report will be regularly monitored by CAAN's safeguards desk and periodically reported by the Project Directorate until all actions are satisfactorily completed. The safeguards desk will likewise ensure activities related to consultation, information dissemination, grievance redress, and reporting are fully addressed and documented. The intended capacity within the safeguards desk will be adequate to address the existing safeguards works and risks in the proposed project. CAAN will submit to ADB (i) semi-annual monitoring reports no later than 3 months after the end of the respective monitoring period during the construction phase, and (ii) an annual report during the operation phase.

52. **Gender and social dimensions monitoring.** The following will be periodically monitored and reported by the Project Directorate: (i) GESI elements or specific facilities and features indicated in the project DMF such as in (a) the GBA international terminal building (Output 2), and (b) the design of the new international terminal building in TIA (Output 3); (ii) capacity building through training and orientation on GESI, risk education related to HIV/AIDS, COVID-19 prevention, human trafficking, sexual harassment, exploitation, and abuse for all civil works contractors and laborers; similar training and orientation will also be undertaken for CAAN staff; and (iii) compliance with applicable labor laws and regulations.

53. **Grievance redress mechanism.** This mechanism will be established to receive, evaluate, and facilitate the resolution of affected people's concerns, complaints, and grievances related to the implementation of the project. During the construction period, grievances could be addressed in the following manner:

- (i) **First level.** At the first level, and the most accessible and immediate contact for the fastest resolve of grievances, are the contractor and the construction supervision consultant on site. Prior to construction of any works, the representative of the project will inform the local community about the project. If any complaints arise during implementation, the contractor and consultant can immediately resolve the complaint on site. The contractor may seek the assistance of the consultant's safeguards specialists (environmental specialist or social safeguards specialist) to resolve the issue. Any person with a grievance related to the project works can contact the project office to file a complaint. It is anticipated that the project office will have a social safeguards focal person to field and resolve complaints. The safeguards focal person will document the complaint, and immediately address and resolve the issue within 1–2 days, if the complaint remains unresolved at the field level. The safeguards focal person will fully document the following information: (i) name of the person, (ii) date complaint was

¹⁴ ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>.

received, (iii) nature of complaint, (iv) location, and (v) how the complaint was resolved.

- (ii) **Second level.** If the grievance remains unresolved, the safeguards specialist of the consultant will forward the complaint to the safeguards focal person of the project office. The person filing the grievance will be notified by the CSC safeguards focal person that the grievance was forwarded to the project office. The project office will address the grievance. Grievances will be resolved through continuous interactions with affected persons, and the project office will answer queries and resolve grievances regarding various issues including environmental or social impacts. Corrective measures will be undertaken at the field level by the project safeguards focal person within 7 days. He or she will fully document the following information: (i) name of the person, (ii) date complaint was received, (iii) nature of complaint, (iv) location, and (v) how the complaint was resolved.
- (iii) **Third level.** In the event that a grievance is not addressed by the contractor, consultant, or project office, the affected person can seek legal redress of their grievance to higher authority or even in the appropriate court. The grievance redress mechanism, however, does not prevent affected persons from seeking legal redress at any time.

C. Evaluation

54. As necessary, special loan administration missions and a midterm review mission will be fielded, under which any changes in scope or implementation arrangement may be required to ensure achievement of project objectives. CAAN will monitor project implementation in accordance with the schedule and time-bound milestones and keep ADB informed of any significant deviations that may result in the milestones not being met. Within 6 months of physical completion of the project or at such later date as ADB may agree, CAAN will submit a project completion report to ADB providing detailed evaluation of the progress of implementation, costs, consultant performance, social and economic impacts, and other details requested by ADB.¹⁵

D. Reporting

55. CAAN will provide ADB the following:

- (i) **Quarterly progress reports** in a format consistent with ADB's project performance reporting system, no later than 45 days after the end of each quarter. The quarterly progress reports should include the financial and disbursement report, variance analysis of physical and financial progress, and details of utilization of funds and reconciliation with the ADB LFIS. A sample template is provided in Attachment D for guidance purposes.
- (ii) **Consolidated annual reports** that include (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) **Project completion report** within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project

¹⁵ Project completion report format is available at <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

accounts and the executing agency's audited financial statement together with the associated auditor's report should be adequately reviewed.

E. Stakeholder Communication Strategy

56. Salient information regarding the project, including scope, general progress status, beneficiaries, invitations for bid, and consultant recruitment notices, will be provided to the general public. The safeguard documents, i.e., the initial environmental examination including the EMP, resettlement plans, indigenous peoples plan (if any), will be posted on ADB's website. CAAN will provide relevant information, including those in paragraph 46, in a timely manner, in an accessible place, and in a form and in languages understandable to the displaced people and other stakeholders. If the displaced people are illiterate, other appropriate communication methods will have to be used.

Table 15: Documents for Disclosure

Project Document	Means of Communications	Timing Frequency	Audience
Project data sheet (PDS)	Asian Development Bank (ADB) website	Initial PDS no later than 30 calendar days from approval of the concept paper; yearly updates afterwards	General public
Design and monitoring framework (DMF)	ADB website	Draft DMF after fact-finding mission	General public
Initial environmental examination	ADB website	Post fact-finding mission	General public, project-affected people in particular
Resettlement plan	ADB website, and directly to affected persons and other stakeholders	Post fact-finding mission	General public, project-affected people in particular
Summary poverty reduction and social strategy	ADB website	Post fact-finding mission	General public, project-affected people in particular
Legal agreements	ADB website	No later than 14 days from Board approval of the project	General public
Project administration manual	ADB website	Upon loan approval	General public
Social and environment monitoring reports	ADB website	Semi-annually for the social monitoring report and annually for the environment monitoring report	General public

Source: Asian Development Bank.

X. ANTICORRUPTION POLICY

57. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.¹⁶ 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.¹⁷

¹⁶ Anticorruption Policy. <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

¹⁷ ADB's Integrity Office website: <http://www.adb.org/integrity/unit.asp>.

58. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the project. The government will publish pertinent information relating to the project on CAAN's website, including business opportunities associated with the project and information in relation to procurement of works and consulting services.

XI. ACCOUNTABILITY MECHANISM

59. 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 the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.¹⁸

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

60. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

No.	Date	Revisions

¹⁸ Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

PROCUREMENT PLAN

Basic Data

Project Name: South Asia Subregional Economic Cooperation Airport Capacity Enhancement Project		
Project Number: 38349-031	Approval Number:	
Country: Nepal	Executing Agency: Ministry of Culture, Tourism and Civil Aviation	
Project Procurement Classification: Category B	Implementing Agency: Civil Aviation Authority of Nepal	
Project Procurement Risk: Medium		
Project Financing Amount: \$150,000,000 ADB Financing: \$150,000,000 Cofinancing (ADB Administered): Non-ADB Financing: US\$ 48,000,000	Project Closing Date: 30 June 2027	
Date of First Procurement Plan: 28 April 2020	Date of this Procurement Plan: 28 April 2020	
Procurement Plan Duration (in months): 18	Advance Contracting: Yes	e-GP: No

A. Methods, Review, and Procurement Plan

1. 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 for Works	Advertisement: International (\$10,000,000 and above) and national (between \$100,001 and \$9,999,999) Electronic government procurement (e-GP) applicable for national advertisement

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	Quality-Cost ratio: 90:10
Competitive for Individual Consultant	Competitively issued through the Consultant Management System

B. Lists of Active Procurement Packages (Contracts)

2. 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 (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
GBA/ICB-xx/2020	Construction of Terminal 2 at Gautam Buddha Airport	58,000,000.00	OCB	Prior	1S2E	Q2 / 2021	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No

							Domestic Preference Applicable: Yes Advance Contracting: No Bidding Document: Large Works High Risk Contract: No Covid-19 Response? No
OCB-01/ACE-SDP/TIA/2020	Extension of parallel taxiway to connect Runway-02 end at TIA and associated works	41,000,000.00	OCB	Prior	1S2E	Q4 / 2020	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: Yes Advance Contracting: Yes Bidding Document: Large Works High Risk Contract: No Covid-19 Response? No
OCB-02/ACE-SDP/TIA/2020	Hangar area development at east side of runway at TIA and associated works	46,000,000.00	OCB	Prior	1S2E	Q4 / 2020	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: Yes Advance Contracting: Yes Bidding Document: Large Works High Risk Contract: No Covid-19 Response? No

Consulting Services

Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
CSC	Construction Supervision Consultant for TIA and GBA	5,500,000.00	QCBS	Prior	FTP	Q3/2020	Non-Consulting Services: No Type: Firm Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: Yes Covid-19 Response? No
International Consultant	Individual consultant to assist EA with Contract Management	135,000.00	Competitive	Prior		Q1 / 2021	Non-Consulting Services: No Type: Individual Assignment: International Expertise: Contract Management Advance Contracting: No Covid-19 Response? No Comments: Quality-Cost Ratio: 90:10
National Consultants	Individual consultants to assist EA with safeguards, contract and project management	565,000.00	Competitive	Prior		Q1 / 2021	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Project Management Advance Contracting: No Covid-19 Response? No Comments: Quality-Cost

Next Phase	Design of pipeline projects and second international terminal building at TIA	2,700,000.00	QCBS	Prior	FTP	Q3 / 2021	Ratio: 90:10 Non-Consulting Services: No Type: Firm Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: No Covid-19 Response? No
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BTP = biodata technical proposal, EA = executing agency, e-GP = electronic government procurement, FTP = full technical proposal, GBA = Gautam Buddha Airport, ICB = international competitive bidding, LCB = limited competitive bidding, OCB = open competitive bidding, Q = quarter, QCBS = quality- and cost-based selection, TIA = Tribhuvan International Airport.

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

3. 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
None						

Consulting Services						
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments
None						

DESIGN AND MONITORING FRAMEWORK

Impact the Program is Aligned with Tourism-led economic development in Nepal enhanced (National Tourism Strategic Plan 2016–2025) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<p>Outcome</p> <p>Safety, capacity, and efficiency of air travel to and from Nepal improved</p>	<p>By 2027</p> <p>a. Effective implementation score in organization category improved to at least 70% (2020 baseline: 50%)</p> <p>b. Average daily international aircraft movements at TIA increased to at least 52 (two-way) (2019 baseline: 13, two-way)^b</p> <p>c. Average daily international aircraft movements at GBA reached at least 7 (two-way) (2020 baseline: Not applicable)</p> <p>d. Number of international passengers increased to at least 5.4 million annually at TIA (2019 baseline: 4.1 million)</p> <p>e. Number of international passengers increased to at least 695,191 annually at GBA (2020 baseline: Not applicable)</p>	<p>a. ICAO safety audit result report^c</p> <p>b.–e. CAAN annual report</p>	<p>Disasters triggered by natural hazards may adversely affect the number of tourists.</p> <p>Prolonged effects of COVID-19 may adversely affect the number of tourists.</p> <p>Ban of Nepalese flights to other countries will be lifted.</p>
<p>Outputs</p> <p>1. TIA airside facilities completed in accordance with the TIA master plan</p> <p>2. International terminal building at GBA constructed (Terminal 2)</p>	<p>By 2026</p> <p>1a. Southern parallel taxiway extended by 1,150 meters (2020 baseline: Not applicable) (OP 7.1.1)</p> <p>1b. Two remote domestic aprons constructed (2020 baseline: Not applicable) (OP 7.1.1)</p> <p>2a. A new international terminal building constructed with GESI and climate change specific facilities and features^d (2020 baseline: Not applicable) (OP 2.4.1, OP 2.5.2, OP 3.2.5)</p>	<p>1a.–1b. CAAN progress reports</p> <p>2a. CAAN progress reports</p>	<p>Change of the government policy on the civil aviation sector regulatory framework hampers project implementation.</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
3. Next phase of TIA works design completed	3a. Design of new international terminal building in TIA completed with GESI and climate change facilities and features ^d (2020 baseline: Not applicable)	3a. CAAN progress reports	
<p>Key Activities with Milestones</p> <p>1. TIA airside facilities completed in accordance with the TIA master plan</p> <p>1.1 Award civil works contract for the airside facilities at TIA (July 2021)</p> <p>1.2 Complete construction of all works (December 2026)</p> <p>2. International terminal building constructed at the GBA (Terminal 2)</p> <p>2.1 Award civil works contract for the international terminal building at GBA (December 2021)</p> <p>2.2 Complete construction of all works (December 2026)</p> <p>3. Next phase of TIA works design completed</p> <p>3.1 Award design consultant (December 2021)</p> <p>Project Management Activities</p> <p>Award TIA and GBA CSC contracts (June 2021)</p> <p>Ensure counterpart fund availability (Q4 2020)</p> <p>Establish PIU under CAAN (Q3 2020)</p>			
<p>Inputs</p> <p>ADB: \$150 million</p> <p>Government: \$48 million</p>			

ADB = Asian Development Bank, CAAN = Civil Aviation Authority of Nepal, COVID-19 = coronavirus disease, CSC = construction supervision consultant, GBA = Gautam Buddha Airport, GESI = gender equality and social inclusion, ICAO = International Civil Aviation Organization, OP = operational priority, PIU = project implementation units, TIA = Tribhuvan International Airport.

Source: Asian Development Bank.

^a Ministry of Culture, Tourism and Civil Aviation. 2016. *National Tourism Strategic Plan 2016–2025*. Kathmandu.

^b The 2020 baseline was not used for this indicator as the COVID-19 pandemic decreased air traffic and passenger numbers significantly.

^c ICAO safety audits focus on validating a state's capability of performing safety oversight of its industry. The eight audit areas are assessed individually to ensure whether the state has effectively and consistently implemented the critical elements of a safety oversight system: (i) primary aviation legislation and associated civil aviation regulations, (ii) civil aviation organizational structure, (iii) personnel licensing activities, (iv) aircraft operations, (v) airworthiness of civil aircraft, (vi) aerodromes, (vii) air navigation services, and (viii) accident and serious incident investigations.

^d GESI and climate change features such as walking stairs, ramps and elevators, access to drinking water taps for all, separate and adequate number of restrooms for women and men restrooms include disabled-friendly toilets, spacious nursing rooms with attached bathroom, and use of solar panels and energy-efficient lighting. GESI action will include appropriate conduct of GESI capacity building and sensitization among staff, contractors, and facility users. Likewise, climate change features include the use of solar panels and energy-efficient lighting, and also incorporate the use of local materials. To enhance resilience in severe natural hazards, climatic events, and threats, earthquake resistant standards and hydrological hazards have been given consideration.

Contribution to Strategy 2030 Operational Priorities:

Expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in the Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2).

Source: Asian Development Bank.

TERMS OF REFERENCE FOR CONSTRUCTION SUPERVISION CONSULTANT

I. BACKGROUND

1. The Government of Nepal has applied for a loan from the Asian Development Bank (ADB) for the South Asia Subregional Economic Cooperation Air Capacity Enhancement Project. The objective of the project is to enhance transport connectivity through improved airport capacity at the Tribhuvan International Airport (TIA) in Kathmandu and the Gautam Buddha Airport (GBA) in Lumbini by constructing a parallel taxiway extension and hangar apron areas at TIA and a new international terminal building at GBA.

2. Taking into consideration the standards and recommended practices of the International Civil Aviation Organization (ICAO), the guidelines of the International Air Transport Association (IATA), and international best practices, an international consultant reviewed the existing master plan and accomplished the detailed engineering design and costing of the airport airside, terminal, and landside facilities. During the study, the consultant carried out various activities such as air traffic forecast and analysis, surface transportation survey and analysis, obstacles limitation surfaces and aeronautical clearance analysis, airfield capacity analysis, and geotechnical analysis. An overview of the development works in TIA is provided in tables C1 to C3.

Table C1: Status of Works for the Airport Airside

No.	Description	Status
1	Runway-02 extension (300 meters)	Construction is ongoing. Completion date: June 2020
2	Remote international apron and parallel taxiway	Contract signed on 20 January 2020. Duration: 3 years
3	Parallel taxiway connection to runway-02 end	To be financed under the proposed ADB loan for the SASEC Air Capacity Enhancement Project
4	Construction of two hangar aprons	To be financed under the proposed ADB loan for the SASEC Air Capacity Enhancement Project
5	Construction of remote domestic apron and isolated aircraft parking position	Proposed ADB loan under the SASEC Air Capacity Enhancement Project and CAAN will finance the package.
6	Fuel farm and fuel hydrant system	Will be constructed by Nepal Oil Corporation (preliminary design is ready)

ADB = Asian Development Bank, CAAN = Civil Aviation Authority of Nepal, SASEC = South Asia Subregional Economic Cooperation.

Source: Civil Aviation Authority of Nepal.

Table C2: Status of Works for Terminal Buildings and Other Facilities

No.	Description	Status
1	New international passenger terminal building of 100,000 square meters to handle 7.5 million passengers per year	Complete detailed design and costing are ready, including for BHS, PA system, security system, FIDS, firefighting system, CUTE system, and structural and interior designs.
2	Conversion of the existing ITB to DTB	The existing 30,000-square meter building is suitable to handle 3 million domestic passengers. The design for refurbishment as domestic terminal building is ready.
3	A new VVIP building for the VVIP movement between the future ITB and future DTB	Complete detailed design and cost estimate are ready.
4	Expansion of the existing cargo building	Complete detailed design and cost estimate

No.	Description	Status
		are ready.
5	Two Nepal Airlines hangars for 1 Code-E and 1 Code-C	Complete detail design and costing of the hangars are ready. Hangars will be constructed by NAC. Complete design, drawings, and documents are handed over by CAAN to NAC. Pavements of hangar aprons are under ADB package.
6	Nepal army complex with offices, barracks, open spaces, well-equipped hangars including VVIP aircrafts, etc.	Separate master plan, detailed design, and cost estimate of each building and hangar are ready.

ADB = Asian Development Bank, BHS = baggage handling system, CAAN = Civil Aviation Authority of Nepal, CUTE = common use terminal equipment, DTB = domestic terminal building, FIDS = flight information display system, ITB = international terminal building, NAC = Nepal Airlines Corporation, PA = public address, VVIP = very very important person.

Source: Civil Aviation Authority of Nepal.

Table C3: Status of Works for Landside Development

No.	Description	Status
1	New airport access/entrance from Tilaganga area	Will be developed during construction of new ITB
2	Connection roads between ITB, VVIP, and future DTB	Will be developed during construction of new ITB
3	Utilities (electricity, sewers, water supply)	Development is ongoing side by side with civil infrastructures.
4	Surface transportation, car parks for passengers and employees	Will be developed during construction of new ITB

DTB = domestic terminal building, ITB = international terminal building, VVIP = very very important person.

Source: Civil Aviation Authority of Nepal.

3. Among the above development plans, the Civil Aviation Authority of Nepal (CAAN) intends to implement the construction of (i) parallel taxiway connection to the end of runway RWY 02, and (ii) two hangar aprons in the airside at TIA in Kathmandu under the new ADB loan. In addition, the ADB loan will be utilized to construct Terminal 2 (T2) at GBA in Bhairahawa where a separate design and construction supervision consultant (DSC) is already mobilized through government financing. The DSC will provide a design within 1 year by December 2020 and a 2-year period has been allocated for construction supervision works. The DSC will supervise the equipment, terminal apron, and associated airside infrastructure package that the government will be funding separately from its internal resources. The construction supervision consultant (CSC) procured under the ADB loan will supervise the TIA and GBA T2 civil works funded under the loan. With regard to the single consolidated monthly and quarterly progress reports, and the periodic social and environmental monitoring reports, the financial and audit reports compiling both TIA and GBA T2 components will be prepared by the CSC.

II. OBJECTIVES OF THE ASSIGNMENT

4. The main objective of the consulting service is to assist CAAN (the employer) in implementing the projects listed in para. 3 by (i) providing project management assistance, (ii) carrying out the expeditious review of designs, (iii) supervising and administering contracts, (iv) preparing the project performance management system, and (v) reporting and documenting the progress of the following work packages (Table C4).

Table C4: Scope of Project Works

No.	Description	Scope of Works
1	Parallel taxiway connection to RWY-02 end in TIA	Retaining structures, drainage, pavement, side strip grading, roads, AGL, etc.
2	Construction of two hangar aprons in TIA	Retaining structures, drainage, pavement, side strip grading, roads, AGL, etc.
3	International terminal building (T2) in GBA	Supervision of terminal building construction (T2)

AGL = airfield ground lighting, GBA = Gautam Buddha Airport, RWY = runway, T2 = Terminal 2, TIA = Tribhuvan International Airport.

5. The consultant will also assist CAAN in preparing (i) consolidated monthly and quarterly progress reports, (ii) periodic social and environmental monitoring reports, (iii) financial reports of TIA and GBA T2 components, and (iv) any other reports required by CAAN and ADB related to the project.

6. These terms of reference broadly define the services required of the consultant who is to be engaged to assist CAAN in the implementation of the project.

7. For TIA, the time period of the consultancy assignment will be 48 months including the defects notification period of 12 months (construction of the TIA component is expected to start from the second half of 2021). For GBA T2, the time period of the consultancy assignment will be 60 months including the defects notification period of 12 months (construction of the T2 building will start from 2022 as per the design of the DSC). The consultant must seek prior written approval from the employer for (i) mobilizing any international or national staff on full time or intermittent basis, or administrative/support staff on yearly basis; and (ii) utilizing any out-of-pocket expenses and items under provisional sums.

III. SCOPE OF SERVICES

A. General

8. The civil construction contract will be based on the Standard Bidding Document of ADB, Large Works (December 2019 version) and the FIDIC MDB harmonized document with appropriate amendments to incorporate local requirements. CAAN will administer the project as the “employer.” The CSC will act as the “engineer” for the works contracts. The construction firm and/or firms implementing the civil works contracts will be herein referred to as the “contractor.”

9. The CSC will take the necessary measures to ensure the quality of work. The CSC shall make all engineering decisions required during the implementation of the contract. However, the CSC shall seek prior approval of the employer with regard to the following:

- (i) issuing the order to commence the works;
- (ii) issuance and approval of variation orders with financial implications;
- (iii) approval of additional items, sums or costs, and variations of rates and prices, including fixation of new rates;
- (iv) approval of subcontracting any part of works in accordance with the limits set forth by the construction contracts;
- (v) approval of any extension of time;
- (vi) issuing instruction to stop the works due to safety violations, operational emergencies, or any other emergency situations affecting the work areas; and

(vii) termination of the contract of works.

10. The CSC will be a firm of consultants. The CSC designates its team leader as the engineer, who shall act on all matters pertaining to the project manager and/or the engineer. However, the consultant's firm shall be responsible for all actions taken by its team leader and their team.

B. Design Review Services

11. These shall include the following:

- (i) compilation of all existing field investigation data and documents, design sheets, drawings, lab facilities, specifications, environmental impact assessments and/or initial environmental examinations and/or environmental management plan (EMP) reports, social statistics and land acquisition and rehabilitation plans, and the contract documents;
- (ii) quick review of all the abovementioned documents, designs, contracts, and preparation of work schedules to enable implementation of works under the contract packages already awarded;
- (iii) carry out detail review and implementation of works under the contracts simultaneously so that there is no delay due to the employer or consultant in the works contract;
- (iv) submit design review reports to the employer and seek the employer's approval on major aspects affecting cost and time;
- (v) submit duly signed and approved design calculation sheets, drawings, and specifications for new designs to the employer; and
- (vi) submit duly signed design review reports, drawings, and specifications to the employer.

C. Project Management Services

12. The consultant shall provide construction project management services to ensure that the project delivery process is adequately governed and managed and that the construction works are completed on time, within cost, meet required quality standards, and that all the project objectives are achieved in delivering a fully functional airport. These services shall include the following:

- (i) management and administration of the construction contract;
- (ii) management of design review, shop drawings, and arranging updated design and drawings;
- (iii) project quality control and compliance with specified project standards;
- (iv) compliance with aerodrome regulatory and certification requirements including by ICAO and IATA;
- (v) compliance with all the specific CAAN requirements;
- (vi) compliance with all the stakeholder requirements including by the principal stakeholders: airport authority, airlines, security, immigration, and customs;
- (vii) project cost and budgetary control;
- (viii) ensuring timely payment and contractor's bill, and unhindered cash flows of the contractors;
- (ix) time and information management;
- (x) site security management;

- (xi) social and environmental management activities;
- (xii) claims, risks, and dispute settlement and/or management services;
- (xiii) occupational safety and health management;
- (xiv) documentation containing design changes, variations, updated contract time and costs during implementation;
- (xv) preparing and maintaining minutes of management meetings, including of site meetings and physical progress meetings as signed and agreed between the employer, the consultant, and the contractor;
- (xvi) maintaining records of photographs showing the sequence of construction progress;
- (xvii) ensuring preparation of as-built drawings and manuals of equipment prepared by the contractor;
- (xviii) providing the service of a scheduling expert to review and analyze critical path method (CPM) schedules submitted by the contractors. All extension-of-time (EOT) applications shall be based on delay analysis using the "base line schedule" and "impacted schedules." The consultant shall prepare work schedules as required and/or directed by the employer;
- (xix) procuring a construction project management information system software and/or construction project document handling software (latest edition of Expedition by Primavera or employer approved equivalent) to organize and track all documentation for the four contract packages in an organized, logical, and sequential manner;
- (xx) providing training at user level to the employer's staff (up to five engineers). The software shall be commonly used by the employer and the consultant. The ownership of the license procured by the consultant shall be in the name of the employer;
- (xxi) establishing a project performance management system in the format acceptable to the employer and ADB; and
- (xxii) overall management of the project in consultation with and with the approval of the employer.

D. Site Supervision Services

13. The consultant shall carry out all duties and responsibilities of the project manager and/or the engineer. To ensure the attainment of the objectives of this engagement, the consultant shall provide the following services. These shall include but not be limited to services listed in Section E to I.

E. Preparing the Work Implementation Environment

14. The consultant shall coordinate with the employer and provide in a timely manner for the following:

- (i) resident engineer at site;
- (ii) site office;
- (iii) handover of sites to the contractor free of encumbrances;
- (iv) drawings and specifications to the contractor;
- (v) field data, benchmark datum, levels, and all reference points;
- (vi) jointly agreed baseline work schedule using Primavera, Microsoft Project or equivalent software on the basis of the critical path method (CPM) prepared and submitted by the contractor;

- (vii) necessary permits and passes to enter the work sites and quarry sites;
- (viii) all other requisite preparatory works; and
- (ix) safeguard the employer's interests in accordance with the contract.

F. Implementation of Works

1. Prepare a construction supervision plan outlining the routines and procedures to be applied in construction supervision, administration, and quality control.
2. Provide general guidance to the contractor as may be necessary to ensure that the works are carried out expeditiously according to the specified standards, agreed schedule, and within the terms of the contract.
3. Furnish for use of the contractor all necessary basic design survey documents. Review and approve contractor's working drawings, shop drawings, installation production plan drawings, and drawings for temporary works. Issue further drawings and provide instruction to the contractor for any works that may not be sufficiently detailed in the contract document.
4. Issue the order of commencement of the work and evaluate and approve the contractor's nominated superintendents and key personnel, construction program and site activities, as well as construction method during execution of the construction works. The consultant shall review and approve the contractor's plan for traffic management, and safety during construction.
5. Revise the contractor's method of work, including site organization, program of performance, quality assurance system, safety plan and environmental management monitoring plan, materials management plan, and labor and equipment management plans.
6. Liaise with the appropriate authorities to ensure that all the affected utility services are promptly relocated.
7. Carry out field inspections on the contractor's setting out of the works in relation to original points, lines, and levels of reference specified in the contract.
8. Organize, as necessary, management meetings with the contractor to review the arrangements for future work. Prepare and deliver minutes of such meetings to the executing agencies and the contractor.
9. Coordinate the works among different contractors employed for the project.
10. Issue instructions, approvals, and notices as appropriate; check and control the work to ensure that it is carried out in accordance with the contract requirements.
11. Explain and/or adjust ambiguities and/or discrepancies in the contract documents where required and issue any necessary clarifications or instructions with the employer's approval.
12. Provide timely recommendation to the employer for instructing the contractors to update performance security, advance payment security, and insurance policies.
13. Assess adequacy of all inputs such as materials, labor, and equipment provided by the contractor.
14. Prepare and submit a disbursement schedule to the employer.
15. Inspect the construction method, equipment to be used, workmanship at the site, and attend shop inspection and manufacturing tests in accordance with the employer's requirements.
16. Carry out regular inspections of all work areas, items, installations, and systems to ensure compliance with design, project specifications, and quality standards, including the contractor's own quality system during the execution of the works. Keep all necessary records, including reporting of any non-conformances for further action.

17. Obtain all the necessary quality and reference design specification compliance certificates from the contractor and check and approve all materials, items, and equipment required for the project to ensure compliance with specifications.
18. Provide all necessary supervision as generally understood and as agreed by the employer for proper execution, completion, and commissioning of the works.
19. Supervise the works so that all the contractual requirements are met by the contractor, including those in relation to (i) quality of the works, ii) safety, and iii) protection of the environment. Confirm that an accident prevention officer proposed by the contractor is duly assigned at the project site.
20. Evaluate value engineering proposals, if any, from the contractors.
21. Ensure prior to construction that the review of detailed design drawings, structural calculations, and technical specifications is fully carried out to confirm compliance with the prevailing criteria and standards.
22. Assess the adequacy of all inputs such as materials, labor, and equipment provided by the contractor and their work methods in relation to the required task. Take appropriate action to expedite progress, and keep and regularly update a list of the contractor's equipment and its conditions to ensure compliance with the list of equipment that the contractor included in their bid.
23. Maintain site diaries, photographs, and other documents necessary to record the contractor's compliance with the contract.
24. Keep proper daily record, duly signed by the contractors and the resident engineers, of equipment that are (i) used, (ii) lying idle due to the employer, and (iii) lying idle due to the contractor's unplanned deployment or non-excusable delays.
25. Control and appraise the progress of works, order the suspension of the works as required, and evaluate time extension of the period for completion of the works, with authorized approval by the employer.
26. Examine all claims by the contractors, assess time bar situations, prepare engineer's determinations, and submit these to the employer for approval.
27. Measure and calculate quantities of approved and accepted works, and check, verify, and provide recommendations to the employer on the contractor's monthly payment.
28. Provide assistance to the employer concerning variations and claims that are to be ordered/issued at the initiative of the employer. Advise the employer on the resolution of any dispute with the contractor.
29. Review change orders that may arise in relation to those that have not been anticipated in the contract documents prior to contract signing and approval.
30. Maintain a record of the results of all monthly work measurements carried out for payments to the contractor.
31. Establish a claim and dispute unit to ensure timely preparation of employer's claims, determination of contractor's claims, and referral of disputes to an adjudicator or dispute board or arbitrators as per conditions of contract arranging to prepare a statement of claim, defense, and counterclaim representing the employer.
32. Verify payment applications submitted by the contractor and issue payment certificates such as interim payment certificates and final payment certificate as specified in the contract.
33. Propose and present to the employer for approval any changes in plans deemed necessary for the completion of the works, including information or any changes that may significantly affect the contract amount, and the time of completion of the project. The consultant shall prepare all necessary change orders for altered plans

and specifications and other details, inform the employer of any problems or potential conflicts with the construction contract, and render recommendations for possible solutions.

34. Assure the receipt of and maintain all warranty for materials and equipment used for the project as required under the terms of the contract document.
35. Perform necessary inspection, specify and supervise any remedial works to be carried out when needed, and carry out final inspection and acceptance of the project before the issuance of the certificate of completion.
36. Perform any other work items not specifically mentioned above but necessary and essential for successful supervision and control of the construction activities in accordance with the plans, specifications, and terms of contract. The consultant's responsibility for the assignment shall remain valid until the issuance of certificate of completion by the employer.
37. Hold weekly site meetings at a fixed and regular time with the contractor and present minutes of meetings, which is signed and agreed by the participants, to the project manager on Monday of the following week. The consultant shall present a progress report once a month at a meeting organized by the project manager.
38. Supervise commissioning and guarantee test carried out by the contractor, check and approve the contractor's report on the commissioning and guarantee test, and issue the operational acceptance certificate as specified in the contract.
39. Approve the contractor's work program, methodology statements, material sources, and safety plan. It is paramount to provide supervision and coordination with the TIA operation safety officer and the contractor's appointed operational safety professional for all works in the airside. TIA plans, processes, and protocols shall be closely followed and monitored to assure operational safety during the interventions in the operational areas of the airport.
40. Approve shop drawings, product information sheets, catalogs, and submittals. The contractor shall provide a submittal matrix with approximate dates of submission for the consultant to be prepared to respond according to the needs of the contract.
41. Inspect all materials and works to ensure compliance with specifications of drawings and other construction documents. The consultant shall immediately send a written notice to the contractor (NTC) about any discrepancy or noncompliance.
42. Complete all measurements and keep detailed measurement records. The contractor shall close the monthly advance report on the 25th day of each month to allow the engineer to complete all measurements and verifications required to issue the reconciled quantities and measurements for the periodic payment request.
43. Maintain records, correspondence, and diaries. The consultant shall maintain a detailed record of red line drawings and specifications annotating all variations and actual dimensions of the installations in the field. This set of documents should be compared weekly with the same red line documents produced by the contractor. All discrepancies shall be reconciled on a weekly basis. These marked documents shall serve to produce the contractor's final as-built drawings and specifications that the consultant reviews and recommends approval to the employer at the end of the project.
44. Assist the employer's representative with the maintenance of consolidated project accounts and with the preparation of financial statements and withdrawal applications for submission to ADB.
45. Assist the employer in negotiating rates for any unscheduled items of work that may arise.

46. Ensure compliance with the environmental and social impact mitigation requirements of civil works contracts, and provide information to ADB on those processes in the monthly progress reports.
47. Prepare, upon the completion of the contracts, a consolidated project completion report in a format provided by ADB.
48. Ensure the contractor prepares all the as-built and as-installed drawings, including maintenance manuals and preventive maintenance schedules.
49. Check the as-built drawings provided by the contractor prior to handover of the completed works.
50. Check and certify the operation and maintenance manual prepared by the contractor.
51. Provide periodic and/or continuous inspection services during the defects liability period, and if any defects are noted, instruct the contractor to rectify these.
52. Upon completion of the defects liability period, issue the defects liability certificate if the consultant is satisfied that the works are fully complete so that the employer can release the performance bonds.
53. Assist the employer during takeover and final acceptance of completed implementation works related to the commissioning of the project.
54. Assist and provide recommendations to the employer for setting up the scheme for actual maintenance and operation of the project after completion.

G. Quality Control

1. Provide effective and regular supervision of the works and supervise the quality control test to assure that the works are executed in accordance with the established standard, criteria, specifications, and procedures. Maintain at least one engineering representative staff at the site at all times to supervise contractor's works, and issue instructions as required.
2. Ensure the contractor performs all the testing required for compliance with project specifications and witness the testing being undertaken. Keep and maintain all testing records.
3. Assess the adequacy of the materials testing laboratory provided by the contractor, order necessary tests of materials and completed works, and instruct removal and substitution of improper works, structures, and/or materials as required.
4. Supervise field tests, sampling, and laboratory tests to be carried out by the contractor. Submit an inspection and/or test report.
5. Verify the contractor's stakeout survey for the centerlines of the alignment, structure locations, and vertical control benchmarks.
6. Ensure that the environment impact of the project is controlled through sound environmental management practices.
7. Keep a field logbook to document all quality control related to the test results taken on the site.
8. Inspect the safety aspects of the construction works, methods, and procedures to ensure that every reasonable measure has been taken to protect life and property.

H. Reporting

1. Carry out timely reporting to the employer for any inconsistency in executing the works and suggest appropriate corrective measures to be applied.
2. Prepare, compile, and submit to the employer all consolidated periodic reports (monthly and quarterly progress reports; periodic social and environmental

monitoring reports; financial reports) of both TIA and GBA T2 as required that are related to the progress of the contractor's performance, work quality, and financial forecast of work.

3. Prepare monthly reports on supervision works based on the inputs of regular site meetings, daily report, weekly report, and monthly report of the implementation works provided by the contractor.
4. Witness and report on any commissioning of the implementation works when the contractor has declared that the work has been completed and prepare a written report on the commissioning and stating the results of the tests measuring the status of the implemented facilities.
5. Prepare reports on physical progress, maintenance liability, handing over, commissioning, and final acceptance of completed implementation works related to the development.

I. Monitoring

1. Monitor the contractor's working methods for compliance with safety regulations and the project's specific health and safety plan.
2. Monitor the contractor's compliance with the project's specific social safeguard issues and environmental protection plan, ensure all the environmental mitigation measures are complied with, and prepare consolidated reports of both TIA and GBA T2.
3. Monitor and obtain from the contractor their daily plant and labor returns.
4. Regularly monitor physical and financial progress, and take appropriate action to expedite progress if necessary, so that the time for completion set forth in the contract will be duly respected by the contractor.
5. Regularly monitor physical and financial progress against the milestones as per the contract so as to ensure completion of the contract time.
6. Review the planned work schedule, monitor physical progress against the contractor's work program, and, when necessary, take appropriate actions to ensure that the contractor maintains an adequate rate of progress to complete the work on schedule.
7. Monitor and witness all the testing and commissioning of the works, items, elements, and systems, including factory acceptance tests, site acceptance tests, and operational acceptance tests upon completion.
8. Based on the environmental impact assessment documents and environmental monitoring plan, monitor and report any environmental influence during construction, and indicate corresponding measures to mitigate the situation. Periodically conduct environmental monitoring at designated stations.

IV. EXPERT INPUTS

15. The time period for consultancy service is expected to be 36 months (plus 12 months defects notification period) for TIA and 48 months (plus 12 months defects notification period) for GBA T2. The CSC service for TIA and GBA T2 will start at different times as stated in section II, paragraph 7 and the CSC shall accordingly mobilize its TIA and GBA T2 teams at different times only after the construction work starts at the TIA and GBA T2 sites. The contracts shall be based on ADB's Standard Form of Contract–Time-Based. The consultant must seek prior written approval from the employer for (i) mobilizing any international and national staff for full time or intermittent basis, or administrative/support staff on yearly basis; and (ii) utilizing any out-of-pocket expenses and items under provisional sums.

A. Team Composition

16. The consulting services will be implemented by an international consulting firm. Engagement of suitable national consultants is encouraged to complement the consultant's local knowledge and experience. It is anticipated that the following international and local staff will be required.

1. International Experts for Tribhuvan International Airport and Gautam Buddha Airport

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
1. Team leader, senior civil engineer	M.E. and/or M.Sc. Civil Engineering (Postgraduate degree and/or diploma in project management and/or contract management is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 18 years ▪ Team leader and/or project manager for 3 projects with minimum 12-month inputs in each project ▪ Overseas experience in 3 projects with minimum 12-month inputs in each project 	1	44
Subtotal			1	44

2. International Experts for Tribhuvan International Airport

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
1. Airport pavement engineer	B.E. and/or B.Sc. Civil Engineering (Postgraduate degree and/or diploma in airport engineering is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Airport pavement engineer for 3 projects with minimum 12-month inputs in each project ▪ Overseas experience in 3 projects with minimum 12-month inputs in each project 	1	6
2. Structural engineer	B.E. and/or B.Sc. Civil Engineering (Postgraduate degree and/or diploma in structural engineering is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Structural engineer for 2 projects with minimum 12-month inputs in each project ▪ Overseas experience in 2 projects with minimum 6-month inputs in each project 	1	4
3. Geotechnical engineer	B.E. and/or B.Sc. Civil Engineering (Postgraduate degree and/or diploma in airport engineering is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Geotechnical engineer for 2 projects with minimum 6-month inputs in each project ▪ Overseas experience in 2 projects with minimum 1-month input in each project 	1	3
4. Airfield ground lighting (AGL) and aviation systems engineer	B.E. and/or B.Sc. in Electrical Engineering (Specialized training in power supply, visual docking guidance system [VDGS], surface movement guidance	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Airfield lighting specialist for 3 projects with minimum 6-month inputs in each project ▪ Overseas experience in 3 projects with minimum 6-month inputs in each project 	1	3

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
	system [SMGS], and airfield lighting is desirable.)			
5. Contract management specialist/ quantity surveyor	B.E. and/or B.Sc. in Civil Engineering (Specialized training in quality control and/or materials testing and/or arbitration, and familiarity with FIDIC and ADB standard bidding documents [SBD]/ contracts are desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Quality assurance (QA) and/or quality control (QC) engineer for 3 projects with minimum 6-month inputs in each project ▪ Overseas experience in 3 projects with minimum 6-month inputs in each project 	1	6
6. Quality control/ materials engineer	B.E. and/or B.Sc. in Civil Engineering (Specialized training in quality control and/or materials testing is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ QA and/or QC engineer for 3 projects with minimum 6-month inputs in each project ▪ Overseas experience in 3 projects with minimum 6-month inputs in each project 	1	4
Subtotal			6	26

3. International Experts for Gautam Buddha Airport

Position	Minimum Qualification	Minimum Experience Requirement	Qty.	Total Person-Months
1. Principal architect	B. Architecture (Training in terminal design and/or any airport-related program is desirable.)	<ul style="list-style-type: none"> • Overall experience of 15 years • Terminal architect for 2 airport projects with minimum 6-month inputs • Overseas experience in international firms in 2 projects with minimum 3-month inputs 	1	4
2. Terminal interior designer	B. Architecture (Training in airport-related program is desirable.)	<ul style="list-style-type: none"> • Overall experience of 10 years • Terminal interior designer for 2 airport projects with minimum 6-month inputs • Overseas experience in international firms in 2 projects with minimum 3-month inputs 	1	4
3. Structural engineer	B.E. and/or B.Sc. in Civil Engineering (M.Sc. in structural engineering and training in structure-related software are desirable.)	<ul style="list-style-type: none"> • Overall experience of 10 years • Structural engineer for 2 projects with minimum 6-month inputs • Overseas experience in international firms in 2 projects with minimum 3-month inputs 	1	4

Position	Minimum Qualification	Minimum Experience Requirement	Qty.	Total Person-Months
4. Baggage handling system (BHS) engineer	B.E. and/or B.Sc. in Mechanical Engineering and/or Electrical Engineering (Training in BHS for airport and other airport-related program is desirable.)	<ul style="list-style-type: none"> Overall experience of 10 years Mechanical/electrical engineer for 2 airport projects with minimum 6-month inputs Overseas experience in international firms in 2 projects with minimum 3-month inputs 	1	4
5. Utility engineer (water supply, sanitary, sewerage, and drainage)	B.E. and/or B.Sc. in Civil Engineering (Training in drainage design and sanitary works is desirable.)	<ul style="list-style-type: none"> Overall experience of 10 years Utility engineer for 2 airport projects with minimum 6-month inputs Overseas experience in international firms in 2 projects with minimum 3-month inputs 	1	4
Subtotal			5	20

4. National Experts for Tribhuvan International Airport

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
1. Deputy team leader/senior resident engineer (RE 1)	M.E. and/or M.Sc. Civil Engineering (Postgraduate degree and/or diploma in construction management is desirable.)	<ul style="list-style-type: none"> Overall experience of 15 years Resident engineer and/or project manager for 3 projects with minimum 12-month inputs in each project Experience in international firms or international organizations in 2 projects with minimum 12-month inputs in each project 	1	40
2. Resident engineer (RE 2)	B.E. and/or B.Sc. Civil Engineering (Postgraduate degree and/or diploma in construction management is desirable.)	<ul style="list-style-type: none"> Overall experience of 15 years Resident engineer and/or project manager for 3 projects with minimum 12-month inputs in each project Experience in international firms or international organizations in 2 projects with minimum 12-month inputs in each project 	1	40
3. Airport pavement engineer	B.E. and/or B.Sc. in Civil Engineering (Specialized training in airport pavement design is desirable.)	<ul style="list-style-type: none"> Overall experience of 10 years Airport pavement engineer for 3 projects with minimum 12-month inputs in each project Experience in international firms or international organizations in 2 projects with minimum 6-month inputs in each project 	1	12

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
4. Airfield ground lighting (AGL) engineer	B.E. and/or B.Sc. in Electrical Engineering (Specialized training in terminal equipment and/or airfield lighting is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Electrical engineer for 2 projects with minimum 12-month inputs in each project ▪ Experience in international firms or international organizations in 2 projects with minimum 6-month inputs in each project 	1	12
5. Aerodrome safety expert	B.E. and/or B.Sc. in Civil Engineering (Pilot or air traffic controller with specialized trainings in safety management system is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Aerodrome safety expert for 2 projects with minimum 6-month inputs in each project ▪ Experience in international firms or international organizations in 2 projects with minimum 6-month inputs in each project 	1	9
6. Contract management specialist	B.E. and/or B.Sc. in any engineering or bachelor's degree in relevant social sciences (Familiarity with FIDIC and ADB SBD contracts is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 15 years ▪ Contract specialist for 3 projects with minimum 12-month inputs in each project ▪ Experience in international firms or international organizations in 2 projects with minimum 12-month inputs in each project 	1	36
7. CAD engineer	B.E. and/or B.Sc. Engineering (Specialized training in CAD is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 5 years ▪ Experience in international firms or international organizations in 2 projects with minimum 12-month inputs in each project 	1	36
8. Quantity surveyor	B.E. and/or B.Sc. in Civil Engineering (Specialized training in quantity surveying is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 7 years ▪ Quantity surveyor for 2 projects with minimum 12-month inputs in each project ▪ Experience in international firms or international organizations in 2 projects with minimum 12-month inputs in each project 	1	36
9. Structural engineer	B.E. and/or B.Sc. in Civil Engineering (M.Sc. and/or postgraduate diploma in structural engineering is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Structural engineer for 2 projects with minimum 3-month inputs in each project ▪ Experience in international firms or international organizations in 2 projects with minimum 3-month inputs in each project 	1	9

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
10. Geotechnical engineer	B.E. and/or B.Sc. in Civil Engineering (M.Sc. and/or postgraduate diploma in structural engineering is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Structural engineer for 2 projects with minimum 3-month inputs in each project ▪ Experience in international firms or international organizations in 2 projects with minimum 3-month inputs in each project 	1	9
11. Legal advisor for employer	LLB (Corporate law is desirable.)	<ul style="list-style-type: none"> ▪ Overall experience of 10 years ▪ Contract lawyer for 2 projects ▪ Experience in international firms or international organizations in 2 projects 	1	6
Subtotal			8	245

5. National Experts for Gautam Buddha Airport

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
1. Deputy team leader and/or senior resident engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 15 years • Team leader in 2 airport projects with minimum 6-month inputs • Experience in international firms or international organizations in 2 projects with minimum 6-month inputs 	1	52
2. Civil engineer and/or resident engineer	B.E./B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 7 years • Civil engineer in 2 airport projects with minimum 6-month inputs • Experience in international firms or international organizations in 2 projects with minimum 3-month inputs 	1	48
3. Architect	B. Architecture	<ul style="list-style-type: none"> • Overall experience of 7 years • Architect for 2 airport projects with minimum 6-month inputs • Experience in international firms or international organizations in 2 projects with minimum 3-month inputs 	1	36
4. Structural engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 7 years • Structural engineer for 2 construction projects with minimum 6-month inputs • Experience in international firms or international organizations in 2 projects with minimum 3-month inputs 	1	18

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
5. Mechanical engineer	B.E. and/or B.Sc. in Mechanical Engineering	<ul style="list-style-type: none"> • Overall experience of 7 years • Mechanical engineer for 2 airport projects with minimum 6-month inputs • Experience in international firms or international organizations in 2 projects with minimum 3-month inputs 	1	18
6. Electrical engineer	B.E. and/or B.Sc. in Electrical Engineering	<ul style="list-style-type: none"> • Overall experience of 7 years • Electrical engineer for 2 airport projects with minimum 6-month inputs • Experience in international firms or international organizations in 2 projects with minimum 3-month inputs 	1	18
7. Procurement expert	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 7 years • Procurement expert in any 2 construction projects with minimum 6-month inputs • Experience in international firms or international organization in 2 projects with minimum 3-month inputs 	1	6
8. Civil engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 5 years • Civil engineer in 2 construction projects with minimum 6-month inputs 	2	56
9. Pavement and/or geotechnical and/or materials engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 5 years • Pavement engineer in 2 airport/road projects with minimum 6-month inputs 	1	28
10. Survey engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 5 years • Surveyor in 2 construction projects with minimum 6-month inputs 	2	18
11. Water supply engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 5 years • Water supply engineer in 2 construction projects with minimum 6-month inputs 	1	9
12. Sanitary and/or sewerage engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 5 years • Sanitary engineer in 2 construction projects with minimum 6-month inputs 	1	9
13. CAD engineer	B. Architecture	<ul style="list-style-type: none"> • Overall experience of 5 years • CAD engineer in 2 projects with minimum 6-month inputs 	1	6
14. Quantity survey engineer	B.E. and/or B.Sc. in Civil Engineering	<ul style="list-style-type: none"> • Overall experience of 5 years • Quantity survey engineer in 2 	1	10

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
		projects with minimum 6-month inputs		
15. Interior designer	B. Architecture	<ul style="list-style-type: none"> Overall experience of 5 years Interior designer in 2 airport projects with minimum 6-month inputs 	1	12
Subtotal			7	344

6. Common National Experts for Tribhuvan International Airport and Gautam Buddha Airport

Position	Qualification Requirement	Experience Requirement	Qty.	Total Person-Months
1. Environmental expert	B.E. and/or B.Sc. in Civil Engineering or Environmental Engineering (Specialized trainings in environmental safeguards are desirable.)	<ul style="list-style-type: none"> Overall experience of 10 years Environmental engineer for 2 projects with minimum 6-month inputs in each project Experience in international firms or international organizations for 2 projects with minimum 6-month inputs in each project 	1	12
2. Social safeguard and/or gender expert	Bachelor's degree in Sociology	<ul style="list-style-type: none"> Overall experience of 10 years Social safeguard and/or gender expert for 2 projects with minimum 6-month inputs in each project Experience in international firms or international organizations for 2 projects with minimum 6-month inputs in each project 	1	12
3. Financial management expert	Chartered Accountant and/or MBA	<ul style="list-style-type: none"> Overall experience of 10 years Financial management expert for 2 projects Experience in international firms or international organizations for 2 projects 	1	12
Subtotal			6	36

17. The estimated person-months are indicative and the actual will vary based on actual duration of works, and will be paid on actual time basis. As common basis for financial proposal, the consultants *must* use the indicative staff person-months as listed in the tables.

18. The international inputs shall be provided by the consultant based in the field (i.e., in Kathmandu, Nepal). However, the consultant may consider providing certain inputs of few positions from the head office or any other location outside the country as required for the purpose of betterment and support to carry out the services effectively. The consultant shall provide the rationale and estimates of such inputs in the technical and financial proposals.

19. To assist in carrying out the services, the consultant will provide national support staff consisting of the following:

Administrative Support Staff

Position	Quantity	Total Person-Months
National Support Staff for TIA		
1. Office manager	1	40
2. Office secretary	2	72
3. Auxiliary staff	1	36
4. Civil IOWs/site engineers	4	144
5. Electrical IOW/site engineers	2	72
6. Senior lab technician	1	36
7. Lab staff	1	36
Subtotal	12	436
National Support Staff for GBA		
1. Office manager	1	52
2. Office secretary	2	52
3. Computer operator	2	52
4. Office assistant	2	52
5. Auxiliary staff/messenger	5	52
Subtotal	12	768

GBA = Gautam Buddha Airport, IOW = inspector of works, TIA = Tribhuvan International Airport.

20. Following are the qualifications and requirements of the national support staff:

- (i) The office manager should have at the minimum a bachelor's degree in business administration and relevant minimum 5-year experience in organizing and supervising administrative activities in the engineering/construction field.
- (ii) The inspector of works (IOW) and sub-engineers should have at the minimum a diploma or a suitable technical qualification certificate in the appropriate discipline (civil, structural, building, mechanical or electrical engineering), with a minimum of 10-year practical experience. Graduate engineer IOWs should have a minimum 3-year experience.
- (iii) The curriculum vitae (CV) and/or qualifications of the national support staff will not be evaluated and are not required in the technical proposal. However, the CVs of these candidates shall be submitted for client approval prior to the mobilization.
- (iv) Mobilization of all staff person-months shall be planned and managed for the optimal utilization of inputs corresponding to the level of progress of construction activities during the entire project period. The staffing schedule shall be updated/adjusted accordingly from time to time.
- (v) The consultant must seek prior written approval from the employer for (i) mobilizing any international or national staff for full time or intermittent basis, or administrative/support staff on yearly basis, and (ii) utilizing any out-of-pocket expenses and items under provisional sums.
- (vi) Time sheet of each staff shall show the detailed list of the activities performed during the working day.

B. Duties and Responsibilities of Key Staffs

International Experts

1. Team Leader/Senior Civil Engineer

- (i) Assist the employer in contract administration and management of the

- project and civil works contract.
- (ii) Interpret the technical specifications and contract documents. The consultant must be fluent in the English language.
 - (iii) Obtain consent of the concerned authorities before approvals of modifications and redesign.
 - (iv) Review the contractor's securities being in approved format and ensure timely renewal of securities.
 - (v) Ensure receipt of requisite insurances as per contract requirement.
 - (vi) Review documentations and advance actions for handing over of site and advise on issuing notice to set the commencement date.
 - (vii) Ensure the contractor effectively implements the quality assurance system.
 - (viii) Review the contractor's detailed work program; suggest modifications, if any; and ensure contractor compliance with the program.
 - (ix) Review the contractor's superintendence personnel and consent with modifications, if any.
 - (x) Scrutinize the contractor's mobilization of equipment in accordance with the contractor's program.
 - (xi) Maintain a record, signed by the contractor's authorized representative and the employer's authorized representative, of daily utilization of equipment by the contractor, showing idle hours and working hours including employer and contractor risks.
 - (xii) Scrutinize and approve the contractor's construction methods statement.
 - (xiii) Issue finalized or revised "Good for Construction drawings" and additional detailed drawings required for the execution of the work.
 - (xiv) Issue modified drawings wherever required due to change in founding level, as a result of change in founding strata or any other reason at the time of execution.
 - (xv) Monitor closely and regularly the progress of work and advise the contractor about corrective measures.
 - (xvi) Monitor the status of contractor's equipment, plant, machinery installations, and housing and medical facilities.
 - (xvii) Direct and/or advise the contractor to avoid and/or reduce the risk in case of any emergency.
 - (xviii) Advise the contractor in all matters covering safety and care of work, environmental aspects, and labor welfare.
 - (xix) Review the test results and certificates of all construction materials and/or sources of materials to ensure quality.
 - (xx) Review and approve mix designs proposed by the contractors.
 - (xxi) Verify and recommend, if in order, contractors' requests for advance and interim payment certificate.
 - (xxii) Assist the client in arranging relocation of services and maintain a permanent record of all payments made to the contractor.
 - (xxiii) Prepare monthly reports.
 - (xxiv) Prepare financial statements.
 - (xxv) Approve and compile as-built drawings.
 - (xxvi) Inspect the works on completion of each milestone before accepting the work and report to CAAN.
 - (xxvii) Inspect works at appropriate intervals during the defects notification period and advise CAAN.
 - (xxviii) Ensure the contractors implement and maintain environmental monitoring in compliance with the environmental management plan.

- (xxix) Ensure requisite insurances furnished by the contract are contract compliant.
- (xxx) Carry out or ensure that delay analysis is carried out based on the baseline critical path method (CPM) schedule and use it as a basis in analyzing EOTs and contractor's claims by determining excusable delays, inexcusable delays, compensable delays, and non-compensable delays.
- (xxxi) Assist CAAN in dispute resolution activities, if necessary, during and after the contract.
- (xxxii) Monitor supervision of all works and ensure proper supervision as per contract requirement.
- (xxxiii) Prepare consolidated monthly and quarterly progress reports, periodic social and environmental monitoring reports, financial reports of TIA and GBA T2 components, and any other reports required by CAAN and ADB related to the project.
- (xxxiv) Supervise all other activities, including mobilization and demobilization of experts, related to the overall responsibility for the assignment as a team leader.

2. **Airfield Pavement Engineer**

- (i) Lead the supervision of the airfield pavement works.
- (ii) Review the pavement design by various methods such as ICAO and the Federal Aviation Administration (FAA), and working drawings for airfield pavements plus the day-to-day supervision of airfield pavement works, including planning and coordination of AGL and other subsurface structures within pavements, laying trials, compliance with specifications for materials, overall workmanship, forming of joints, and routine testing during laying of bituminous and concrete mixtures as part of overall quality control.
- (iii) Assess the residual life of the existing pavement and the overlaid or new pavement for different combination of loads and projected traffic.
- (iv) Be responsible for quality of pavement construction of the project, including adequate tests at the site and laboratory.
- (v) Assist the team leader on airport civil engineering and pavement works.

3. **Structural Engineer**

- (i) Assist and advise the team leader/deputy team leader on structural issues as required.
- (ii) Supervise data collection and analysis for structural design reviews.
- (iii) Monitor and evaluate the progress of structural construction.
- (iv) Be responsible for structural steel and/or reinforced concrete design of buildings, terminal facilities, and bus stop facilities. This will include the structural design of the building and shelter design at terminals and bus stops.
- (v) Assist the team leader as required.

4. **Geotechnical Engineer**

- (i) Perform geotechnical analysis and study to assess construction site condition.

- (ii) Plan and conduct geotechnical exploration effectively.
- (iii) Perform field and environmental investigations for embankment construction, if required.
- (iv) Develop proposals and determine cost and schedule for investigations.
- (v) Provide direction to the technical team in field inspection activities.
- (vi) Develop design drawings and specifications for construction projects.
- (vii) Review and approve geotechnical designs.
- (viii) Review construction design proposals and approve geotechnical aspects.
- (ix) Analyze geotechnical findings, perform appropriate calculations, and prepare reports.
- (x) Assist the team leader in design and evaluation of embankment constructions.

5. Airfield Ground Lighting and Aviation Systems Engineer

- (i) Lead the supervision of airfield ground lighting (AGL) and aviation systems installation works.
- (ii) Must be conversant with international standards and codes of practices and also the ICAO and FAA standards as applicable to AGL and aviation systems.
- (iii) Be responsible for the review of contractor's design and working drawings and for the day-to-day supervision of the installation of AGL and aviation systems including compliance with specifications for all associated items and components, installation methodology, quality of workmanship, and routine testing as part of acceptance and overall compliance.
- (iv) Oversee the preparation of handover documentation for each item, facility, or system including the Planned Maintenance Log Books.
- (v) Assist the team leader as required.

6. Programming Expert/Schedule Control Engineer

- (i) Assist the team leader and resident engineers to review the contractor's baseline schedule, and compare the actual activities with the baseline schedules and/or impacted schedules as required.
- (ii) Supervise data collection and analysis for scheduling design reviews.
- (iii) Carry out delay analysis to ascertain excusable delay, inexcusable delay, compensable delay, and non-compensable delay every quarter.
- (iv) Perform progress monitoring and evaluation of scheduling of construction works.
- (v) Train the employer's engineers on scheduling and delay analysis.
- (vi) Assist the team leader as required.

7. Quality Control/Materials Engineer

- (i) Lead the supervision of mineral aggregates supply and the production of bituminous and concrete mixtures.
- (ii) Must be conversant with the British Standards and Codes of Practice as applicable to airport and airfield pavement works, and be fluent in English.
- (iii) Responsible for review of contractor's mix designs and for the day-to-day monitoring of batching plant outputs including compliance with specifications and supervision of testing as part of overall quality control.

- (iv) Assist the resident engineer and senior pavement engineer and/or materials engineer to finalize sampling methods and criteria and acceptance criteria for quality control and assurance.
- (v) Examine contractors' preparation and completed portion of work as per "request for inspection" and advise the contractor promptly regarding the deficiency, if any.
- (vi) Monitor closely and regularly the progress on materials procurement and quality, and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (vii) Carry out inspection of contractor's lab equipment and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (viii) Ensure and witness sampling and testing being carried out by the staff of the contractors and undertake additional tasks as necessary to ensure quality of works.
- (ix) Scrutinize test results and certifications of all construction materials and/or sources of materials, undertake additional tests if necessary, and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (x) Scrutinize the mix design proposed by the contractor and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (xi) Maintain a permanent record of all tests carried out for monitoring the quality of works.
- (xii) Assist the senior pavement engineer and/or materials engineer in approval of borrow areas and quarries with the consent of the senior pavement engineer and/or materials engineer.
- (xiii) Monitor and maintain quality in all aspects.
- (xiv) Be responsible for quality control of construction materials and completed works.
- (xv) Monitor and check the day-to-day quality control of the works carried out under the contract and countersign the progress payment certificates when the quality of the works is satisfactory.
- (xvi) Immediately inform the resident engineer of problems related to the quality and quantity of materials and works, and any instances of non-conformance of the "contractor's works with the technical specifications" and/or the safeguard requirements.
- (xvii) Verify adequacy of the contractor's procedures for materials testing and the setting up of the materials testing laboratory in order that all testing carried out by the contractor is in accordance with the testing procedures indicated in the specification.
- (xviii) Verify the contractor's sources of construction materials and proposed materials to be used to ensure that all materials used in the execution of the project fully meet the specification requirements, and verify the specifications of the proposed materials.
- (xix) Verify the contractor's proposed materials, specifications, and drawings, and ensure compliance with the specifications in every respect.
- (xx) Verify the contractor's trial works (e.g., Cube tests) to ensure that all works, proposed materials, and methods are correct and fully meet the specifications.
- (xxi) Verify and propose any modifications to the contractor's activities relating to the inappropriate material or method that may be used throughout the

- period of maintenance works.
- (xxii) Assist the resident engineer in the preparation of the monthly report with regard to the quantity and quality aspects in accordance with the contract.
- (xxiii) Monitor the materials sources (quarries and borrow areas) to ensure that all environmental and social requirements are met.
- (xxiv) Perform other duties as assigned by the team leader or their nominee.

8. **Contract Specialist/Quantity Surveyor**

- (i) Review and analyze the contractor's and employer's claims and notices, and provide expert opinion.
- (ii) Assist/advise the engineer/employer in the substantiation of employer's claims.
- (iii) Assist in the preparation of negotiating planning and negotiations with the contractor for amicable settlement.
- (iv) Advise and support the employer in tasks related to notice of claims, claims and disputes, in relation to contract law.
- (v) Participate in meetings related to claims, negotiation for amicable settlement, etc.
- (vi) Support the employer with the review of documents, including documents for claims and payment of claims, submitted by the contractors with the purpose of ensuring their quality and compliance with the requirements of the respective contracts.
- (vii) Review and comment on documents (legal texts, reports) prepared by others.
- (viii) Support the employer to identify all potential problems and risks during claims procedures and assist by all reasonable means in selecting options for resolving them.
- (ix) Provide written and oral advice to the employer.
- (x) Provide reports as follows: (a) an initial assessment report of the claims, notices, and related contract conditions; (b) a final report summarizing the issues dealt with, results achieved, situation report, and conclusions and/or recommendations for any outstanding items will be required; (c) occasional reports to elaborate on the advice given or specific issues and more detailed assessment of the contract position, claim, etc. These will be required on an ad hoc basis.
- (xi) Attend meetings with the contractor to advise and present on behalf of the employer and/or engineer as agreed in the consultant's area of expertise.
- (xii) Assist the team leader as required.

National Staff

1. Deputy Team Leader/Resident Engineers

- (i) Lead the supervision team for all the civil and infrastructure works for the new airport.
- (ii) Must be conversant with international standards and codes of practices, including the ICAO standards, and be fluent in English.
- (iii) Be responsible for the day-to-day administration of the construction contract plus the management of engineering technical matters including review of contractor's design and working drawings, method statements,

compliance with health and safety requirements, specifications for materials, workmanship, and routine testing as part of overall quality control.

- (iv) Interpret the technical specifications and contract documents and give advice to the team leader.
- (v) Review the contractor's securities being in approved format and ensure timely renewal of securities.
- (vi) Ensure receipt of requisite insurances as per contract requirement.
- (vii) Review documentations and advance actions for handing over of site and advise on issuing notice to set the commencement date.
- (viii) Ensure the contractor effects and implements quality assurance system.
- (ix) Review and assist the team leader in approving the contractors' detailed work program and in suggesting modifications, if any, and ensure contractor compliance with the program.
- (x) Review and assist the team leader in issuing approval to the contractor's superintendence personnel suggesting modifications, if any, and scrutinize the contractor's mobilization of equipment in accordance with the contractor's program.
- (xi) Scrutinize and approve the contractor's construction methods statement.
- (xii) Review and assist the team leader in issuing finalized or revised "Good for Construction drawings" and additional detailed drawings required for the execution of the work.
- (xiii) Assist the team leader in the approval of contractor's working drawings based on setting out details.
- (xiv) Ensure compliance of setting out data for the works finalized as a result of ground verification and survey.
- (xv) Monitor supervision of all works and ensure proper supervision as per contract requirement.
- (xvi) Monitor closely and regularly the progress of work and advise the contractor about corrective measures.
- (xvii) Monitor the status of contractor's equipment, plant, machinery installations, and housing and medical facilities.
- (xviii) Direct and/or advise the contractor to avoid and/or reduce the risk in case of any emergency.
- (xix) Advise the contractor in all matters covering safety and care of work, environmental aspects, and labor welfare.
- (xx) Review and check the test results and certificates of all construction materials and sources of materials to ensure quality.
- (xxi) Review and check the mix designs proposed by the contractors.
- (xxii) Verify and recommend, if in order, contractors' requests for advance and interim payment certificate.
- (xxiii) Assist the client in arranging relocation of services.
- (xxiv) Maintain a permanent record of all payments made to the contractor.
- (xxv) Prepare monthly reports.
- (xxvi) Assist the team leader in approval and compilation of as-built drawings.
- (xxvii) Inspect the works upon the completion of each milestone before accepting the work and report to the team leader and/or CAAN.
- (xxviii) Inspect works at appropriate intervals during the defects notification period and advise the team leader and/or CAAN.
- (xxix) Ensure the contractor implements and maintains environmental monitoring in compliance with the environmental management plans.

- (xxx) Maintain an equipment utilization logbook duly signed by the employer's representative and the contractor's representative showing the cause of idle hours.
- (xxxi) Overall responsible for contract administration and management, quality of works, correctness of quantity of work executed and payable to the contractor, implementation of environmental management plans, social and safeguard issues, etc.
- (xxxii) Prepare assets inventory and assets management system.
- (xxxiii) Prepare consolidated monthly and quarterly progress reports, periodic social and environmental monitoring reports, financial reports of TIA and GBA T2 components, and any other reports required by CAAN and ADB related to the project.
- (xxxiv) Assist the team leader in overall project management.

2. Structural Engineer

- (i) Assist and advise the resident engineer on structural issues as required.
- (ii) Supervise data collection and analysis for structural design reviews.
- (iii) Monitor and evaluate the progress of structural construction.
- (iv) Be responsible for structural steel and/or reinforced concrete design of buildings and terminal and bus stop facilities. This will include the structural design of the building and shelter design at terminals and bus stops.
- (v) Assist the team leader as required.

3. Geotechnical Engineer

- (i) Perform geotechnical analysis and study to assess construction site condition.
- (ii) Plan and conduct geotechnical exploration effectively.
- (iii) Perform field and environmental investigations for embankment construction, if required.
- (iv) Develop proposals and determine cost and schedule for investigations.
- (v) Provide direction to the technical team in field inspection activities.
- (vi) Develop design drawings and specifications for construction projects.
- (vii) Review and approve geotechnical designs.
- (viii) Review construction design proposals and approve geotechnical aspects.
- (ix) Analyze geotechnical findings, perform appropriate calculations, and prepare reports.
- (x) Assist the team leader in design and evaluation of embankment constructions.

4. Drainage Engineer

- (i) Get involved with the on-site construction.
- (ii) Inspect drainage sites and make necessary investigations.
- (iii) Review the design and analyze airport storm drainage systems (hydrology, hydraulics, stormwater quality, and detention).
- (iv) Produce hydrologic and hydraulic analyses with computer-aided software and proprietary models.
- (v) Responsible for production of design calculations, technical reports, permitting, and engineering plans and specifications for design of airport

- drainage facilities, storm drains/sewers, and detention facilities.
- (vi) Estimate quantity of resources and equipment needed for the project.
- (vii) Assign tasks to the team and oversee their performance.
- (viii) In charge of investigating problems to determine whether there is a blockage or leak.
- (ix) Ensure completion, accuracy, and compliance of reports in relation to standard engineering norms.
- (x) Assist the team leader as required.

5. Airfield Ground Lighting Engineer

- (i) Supervises AGL and aviation systems installation works.
- (ii) Must be conversant with international standards and codes of practices and also the ICAO and FAA standards as applicable to AGL and aviation systems.
- (iii) Responsible for review of contractor's design and working drawings and for the day-to-day supervision of the installation of AGL and aviation systems including compliance with specifications for all associated items and components, installation methodology, quality of workmanship, and routine testing as part of acceptance and overall compliance.
- (iv) Oversee the preparation of handover documentation for each item, facility, or system including the planned maintenance log books.
- (v) Assist the team leader as required.

6. Contract Management Specialist

- (i) Review bill of quantities (BOQ) items and quantity with drawings, and point out the discrepancies and variations, if any, to the team leader.
- (ii) Verify record measurements, BOQ items, and/or work quantities executed in the contractor's monthly statement.
- (iii) Verify, examine, and certify interim payment certificates received from contractors.
- (iv) Prepare variation statement showing the impact of variation on time and cost.
- (v) Maintain a permanent record of all measurements for the work quantities.
- (vi) Assist the team leader in contract administration and the civil works contract.
- (vii) Assist the team leader in interpretation of the technical specifications and contract documents.
- (viii) Review and ensure conformity of contractor's securities in approved formats and ensure timely renewal of securities.
- (ix) Ensure requisite insurances furnished by the contractor are contract compliant.
- (x) Assist the team leader and scheduler in comparing the schedules in preparing the monthly reports and financial statements.
- (xi) Assist the team leader in preparing employer's claims, processing claims, and dispute settlement as provided in the contract.
- (xii) Assist the team leader as required.

7. Schedule Follower/Program and Delay Analyst

- (i) Assist and advise the team leader and/or deputy team leader on scheduling issues as required.
- (ii) Supervise data collection and analysis for scheduling and design reviews.
- (iii) Monitor progress and evaluation of scheduling of construction works.
- (iv) Undertake delay analysis.
- (v) Assist the team leader as required.

8. Quantity Surveyor

- (i) Lead the supervision of cost monitoring for all the works associated with the construction of the new airport, and report to the project manager.
- (ii) Must be fluent in English, have experience in working under different contract forms and methods of measurement, and demonstrate sound knowledge of costs and prices for building and civil engineering works.
- (iii) Responsible for the preparation and regular monitoring of the project cost plan and reporting of project costs against progress.
- (iv) Oversee monthly measure of work executed and preparation of contractor payment certificates.
- (v) Responsible for all quantity estimation, rate analysis, and cost estimation works within the scope of works mentioned in the consultant's terms of reference.
- (vi) Must have experience in quantity estimation works for urban engineering projects.
- (vii) Perform the estimation of quantity and rate analysis based on prevailing norms and standards using approved district rates.
- (viii) During the construction phase, review and check the measurements of the major work items in the running bills of the contractor as required or as requested by the team leader.
- (ix) Assist the team leader as required.

9. Quality Control/Materials Engineer

- (i) Lead the supervision of mineral aggregates supply and the production of bituminous and concrete mixture.
- (ii) Must be conversant with the British Standards and Codes of Practice as applicable to airport and airfield pavement works and be fluent in English.
- (iii) Responsible for review of contractor's mix designs and for the day-to-day monitoring of batching plant outputs including compliance with specifications and supervision of testing as part of overall quality control.
- (iv) Assist the resident engineer and senior pavement engineer and/or materials engineer to finalize sampling methods and criteria and acceptance criteria for quality control and assurance
- (v) Examine the contractor's preparation and completed portion of work as per "request for inspection" and advise the contractor promptly regarding the deficiency, if any.
- (vi) Monitor closely and regularly the progress on materials procurement and quality, and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (vii) Carry out inspection of the contractor's lab equipment and report to the resident engineer and senior pavement engineer and/or materials engineer.

- (viii) Ensure and witness sampling and testing being carried out by the staff of the contractors and undertake additional tasks as necessary to ensure quality of works
- (ix) Scrutinize test results and certifications of all construction materials and/or sources of materials; undertake additional tests, if necessary; and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (x) Scrutinize the mix design proposed by the contractor and report to the resident engineer and senior pavement engineer and/or materials engineer.
- (xi) Maintain a permanent record of all tests carried out for monitoring the quality of works.
- (xii) Assist the senior pavement engineer and/or materials engineer in approval of borrow areas and quarries with the consent of the senior pavement engineer and/or materials engineer.
- (xiii) Monitor and maintain quality in all aspects.
- (xiv) Responsible for quality control of construction materials and completed works.
- (xv) Monitor and check the day-to-day quality control of the works carried out under the contract and countersign the progress payment certificates when the quality of the works is satisfactory.
- (xvi) Immediately inform the resident engineer of problems related to the quality and quantity of materials and works and to any instances of non-conformance of the “contractor’s works with the technical specifications” and/or the safeguard requirements.
- (xvii) Verify adequacy of the contractor’s procedures for materials testing and the setting up of the materials testing laboratory in order that all testing carried out by the contractor is in accordance with the testing procedures indicated in the specification.
- (xviii) Verify the contractor’s sources of construction materials and proposed materials to ensure that all materials used in the execution of the project fully meet the specification requirements, and verify the specification of the proposed materials.
- (xix) Verify the contractor’s proposed materials, specifications, and drawings, and ensure compliance with the specifications in every respect.
- (xx) Verify the contractor’s trial works (e.g., Cube tests) to ensure that all works, proposed materials, and methods are correct and fully meet the specifications.
- (xxi) Verify and propose any modifications to the contractor’s activities relating to the inappropriate material or method that may be used throughout the period of maintenance works.
- (xxii) Assist the resident engineer in the preparation of the monthly report with regard to the quantity and quality aspects in accordance with the contract.
- (xxiii) Monitor the sources of materials (quarries and borrow areas) to ensure that all environmental and social requirements are met.
- (xxiv) Perform other duties as assigned by the team leader or their nominee.

10. Pavement Engineer

- (i) Review the pavement design by various methods such as ICAO and FAA, and the working drawings for airfield pavements plus the day-to-day

supervision of airfield pavement works including planning and coordination of AGL and other subsurface structures within pavements, laying trials, compliance with specifications for materials, overall workmanship, forming of joints, and routine testing during laying of bituminous and concrete mixtures as part of overall quality control.

- (ii) Be responsible for the quality of pavement construction of the project, including adequate tests at the site and laboratory.
- (iii) Assist the team leader on airport civil engineering and pavement works.

11. Aerodrome Safety Expert

- (i) Carry out safety risk assessment and manage the operational safety of TIA during construction works at the runway extension area (A03) under package NCB-01.
- (ii) Must have (i) detailed knowledge and understanding of established principles, practices, and procedures relevant to aerodrome safety regulation functions, including ICAO aerodrome standards and recommended practices as well as associated guidance materials relating to the regulation and operations of aerodrome; (ii) completed accredited aerodrome certification and safety management system training courses; or (iii) have practical experience in aviation system auditing.
- (iii) Review the design and drawings of the airside development plan of TIA and carry out hazard analysis and risk assessment associated with all construction works in airside areas.
- (iv) Review the safety management plan prepared by the contractor for construction of airside infrastructures, and provide advice if any improvements are required.
- (v) Review all safety measures taken by the contractor and assess its adequacy to mitigate all risks associated with identified hazards.
- (vi) Provide trainings on safety management system to engineers and contractor's employees.
- (vii) Assist the team leader on airport airside safety-related matters.

12. Environmental and Social Safeguard Specialist

- (i) Assist and advise the resident engineer on environmental impact assessment issues and social (including gender) issues as required.
- (ii) Supervise data collection and analysis for environmental impact assessment design reviews.
- (iii) Perform progress monitoring and evaluation of environmental impact assessments and social impacts of construction works.
- (iv) Scrutinize the contractor's construction method statement for its compliance to environmental and social aspects.
- (v) Supervise the contract in all matters concerning environmental and social aspects.
- (vi) Monitor compliance with the environmental management plan and resettlement plan of both TIA and GBA T2.
- (vii) Assist CAAN in undertaking environmental and social safeguards of both TIA and GBA T2.
- (viii) Prepare and execute the environmental management plan and resettlement plan of both TIA and GBA T2 as per requirement of ADB.

- (ix) Prepare consolidated monthly and quarterly progress reports of social and environmental monitoring of TIA and GBA T2 components, and any other reports required by CAAN and ADB related to the project.
- (x) Assist the team leader as required.

13. CAD Engineer

Assist the team leader, resident engineers, and architects on all matters relating to computer-aided designs and productions.

14. Legal Advisor

- (i) Assist the employer on the issues of governing laws (national acts and regulations, etc.) related to implementation of the project.
- (ii) Provide adjudication, arbitration, and litigation representation and support.
- (iii) Prepare documents to be submitted to dispute boards, arbitration tribunals, and courts in coordination with the contract specialist, if required.
- (iv) Prepare replies to legal notices.
- (v) Attend meetings.
- (vi) Source for relevant expert witness or assist the expert witness.

15. Financial Management Expert

- (i) Provide support to project implementation units in the preparation of the audited project financial statement (APFS) as per the guidelines of the Financial Comptroller General Office (FCGO) and the Office of the Auditor General (OAG), and in accordance with the ADB requirements.
- (ii) Consolidate the year-end APFS from both project implementation units (TIA and GBA) to come up with the consolidated APFS for the project.
- (iii) Ensure the disbursements and the reimbursement records reconcile with ADB's Loan Financial Information System/Grant Financial Information System (LFIS/GFIS) and FCGO records.
- (iv) Provide guidance to the project implementation units as required in the preparation and submission of the withdrawal applications.
- (v) Compile financial data from both project implementation units and prepare periodic consolidated financial progress reports.
- (vi) Assist project implementation units in financial closures and statement of expenditures (SOE) review of the project.

National Support Staff

1. Office Manager

- (i) Assist and advise the team leader and resident engineers on administrative issues as required.
- (ii) Ensure the office runs efficiently and smoothly.

2. Senior Lab Technician

- (i) Assist resident engineers and materials engineer/quality control engineer on all matters relating to construction materials testing and quality of

- completed works.
- (ii) Be responsible for quality control of construction materials and completed works.
- (iii) Assist the team leader as required.

3. Inspector of Works/Junior Site Engineer

- (i) Be responsible for the supervision of day-to-day construction works, general workmanship, and quality of works.
- (ii) Maintain the daily diary, prepare daily reports on standard reporting formats, and submit the reports whenever required by the resident engineer.
- (iii) Attend the weekly meetings with the team leader and other team members as appropriate and brief about the progress of works and any problems associated with the delay of construction works.
- (iv) Report to the resident engineer on any problems arising during construction.
- (v) Assist the team leader as required.

4. Senior Surveyor

- (i) Scrutinize topographic survey data, if any, in the contract drawings and associate and scrutinize the contractor's updated topographic survey data.
- (ii) Witness and monitor survey and setting out operations and verify data and details.
- (iii) Carry out detailed checking and verification of setting out data.
- (iv) Carry out levels of different layers along with the surveyor of the contractor.
- (v) Be responsible for maintaining the horizontal and vertical profile of the civil work and other construction.
- (vi) Assist the team leader as required.

5. Responsibility of the Consultant

21. The consultant is responsible to the employer for the services described under the scope of works above. The services shall be carried out in accordance with the professional code of ethics and in conformity with the national regulations and relevant ADB guidelines.

V. EXPECTED DELIVERABLES

A. Project Reporting Services

22. The consultant shall prepare and submit to the employer the reports as specified in this section. Six hard copies and two soft copies shall be submitted for each of the following reports.

1. Inception Report

23. This shall include the following and will be submitted in the first 6 weeks:

- (i) Work plan for the duration of the consultancy services
- (ii) Approach to design review for the designs carried out by the previous consultant including the details of the designated team member and their inputs and

- responsibilities
- (iii) Approach to project management support including the details of the designated team member and their inputs and responsibilities
- (iv) Approach to construction supervision including the details of the designated team member and their inputs and responsibilities
- (v) Approach to extension-of-time (EOT) and variation orders based on delay analysis
- (vi) Approach to completion reports, as-built drawings, and operation and maintenance manuals
- (vii) Approach to claims and dispute settlement
- (viii) Construction supervision procedure manual

24. This supervision concept should be approved by the employer in the first month of assignment. Comments on the Inception Report will be prepared and discussed between the consultant and the Project Director and agreed formally.

2. Daily and Weekly Report

25. The Daily and Weekly Report contains the status of progress, equipment, staffing, and issues relating to delays and other factors affecting smooth project implementation.

3. Quarterly Project Status Report

26. The consultant shall prepare, submit, and present to the employer a consolidated Project Status Report and Environmental and Social Safeguard Monitoring and Supervision Report every quarter comprising TIA and GBA T2 components. The report shall capture the (i) overall progress of the project; (ii) analyze delays, if any; and (iii) key issues that have an impact on timely and satisfactory completion of the project and the overall health of the project with regards to technical compliance, quality, health and safety, environment, social, programming, and costs. The report shall include the following:

- (i) an overview of the technical compliance by the contractor with the terms of the contract and technical standards;
- (ii) an overview of the progress on design development by the contractor and status of compliance with the Reference Design;
- (iii) an overview of contractor's physical progress and any early warning signs of potential delays;
- (iv) comparison of the tender schedule with the baseline schedule based on the CPM and agreed before the commencement of work by the contractors with the actual progress of the baseline items;
- (v) comparison of the baseline schedule with the actual progress of the works;
- (vi) in case of delays and potential delays, provide a comparison between the baseline schedule and actual progress achieved, showing delays due to the contractor and delays due to the employer, with an analysis of the gaps in achievement and corrective measures taken to remedy the shortcomings. A consistent and systematic delay analysis including the impact of variations shall be carried out for decision on extension of time and compensable and non-compensable delays;
- (vii) an overview of the contractor's performance on quality, both in respect of materials and workmanship;
- (viii) an overview of the contractor's performance on health and safety and protection of the environment;
- (ix) an assessment of risks and a summary cost appraisal on project costs and

- (x) projection of final outturn costs; and
- (x) the separate environmental and social safeguard monitoring and supervision report shall include changes in the environmental parameters supported by laboratory test results as set out in the environmental management plan. The report shall also quantify and assess the efficacy of the environmental impact mitigation measures and recommendations of the best practices.

4. Monthly Progress Reports

27. The consultant shall prepare and submit to the employer a monthly progress report by the middle of each month based on the input of regular site meetings, daily record, weekly report, etc. and that summarizes the work activities and progress achieved by the contractor for the preceding month and the work accomplished by the supervision team for the same period. The report shall outline any problems encountered (administrative, technical, or financial) and give recommendations on how these problems may be overcome. Progress reports shall be necessary to support the payment of invoices submitted by the contractor.

28. The monthly report should include (i) harmonized (with the contractors) quantities and volumes for the period, (ii) key performance indicators (KPI) for the project, (iii) resources and equipment allocations, and (iv) performance of critical employees in the project. The progress report shall display in words and in graphical manner (pie charts, bar charts, etc.) the contract advancement and financial performance. The consultant should provide the employer recommendations to modify and/or correct the causes for the variances observed during the period.

29. To complement the items listed above, the report shall include the following:

- (i) brief summary of the work undertaken during the month;
- (ii) program review and progress made on work undertaken, including percentage of actual progress against planned progress;
- (iii) status of design development by the contractor;
- (iv) status of procurement for the various materials, items, and equipment;
- (v) quality control testing carried out and non-conformances;
- (vi) weather conditions and any weather-related delays;
- (vii) status of engineer's facilities;
- (viii) contractor's equipment and materials on site;
- (ix) contractor's payment record;
- (x) project cash flow projections;
- (xi) claims for cost and time extensions by the contractor or any other third party;
- (xii) variations;
- (xiii) environmental mitigation measures including any social issues;
- (xiv) health and safety issues;
- (xv) problems encountered on site;
- (xvi) progress photographs; and
- (xvii) contractor's and consultant's personnel on site.

5. Monthly and Annual Executive Reports

30. The consultant shall prepare and submit to the employer a monthly executive report that summarizes the monthly progress report with key details of the month and provides a graphical

representation of the status of time and cost.

6. Technical Reports and Other Reports

31. The consultant shall produce as necessary technical reports and position papers dealing with technical matters arising during the project implementation. The consultant shall produce any other reports on the project as may be requested by the employer in the course of performing the consultancy services.

7. Final Completion Reports

32. The consultant shall prepare a comprehensive final completion report for each of the major element of the project when the respective element reaches a stage of substantial completion during the period of the services. These reports shall initially be submitted in draft and shall summarize the method of construction, the construction supervision performed, and recommendations for future maintenance including any necessary recommendations for training of the employer's staff in operation and maintenance. The consultant shall then summarize and consolidate in a single final report (in separate volumes as necessary) the full project completion report. The supervision completion report shall include the following:

- (i) daily reports/records,
- (ii) document of design changes and change orders,
- (iii) document of quality control,
- (iv) document of extra claims,
- (v) minutes of site meetings,
- (vi) photographs and/or videos,
- (vii) as-built drawings,
- (viii) defects liability certificate (DLC),
- (ix) approval of contractor's final account,
- (x) manuals,
- (xi) record of commissioning, and
- (xii) assets inventory.

B. Work Program

33. The consultant shall prepare a work program that will in the minimum include the following:

- (i) work schedule in detail,
- (ii) staffing schedule, and
- (iii) allocation of experts and their discipline and expertise. The curriculum vitae and a Letter of Availability to Work of the proposed experts shall be attached.

34. The consultant shall provide construction supervision services within a time frame of 48 months (including 12-month defects liability period).

35. It is estimated that 24 personnel with a total of 418 person-month inputs shall be required during the construction period, and a staggered total of 12 person-month inputs during the defects liability period (12 months).

36. The detailed person-month inputs within the given time frame shall be required to justify the total charges for person-month allocation.

37. The administration and management of the services shall be done through the project directorate office of the employer.

38. The work program shall be approved by the employer.

C. Client's Input, Personnel, and Facilities to be Provided by the Employer

39. CAAN shall provide the consultant with the following:

- (i) existing designs by Japan Airport Consultants;
- (ii) office space, furniture, and utilities;
- (iii) access to site including airport pass, existing data, survey reports, and other relevant records and information required to perform the assigned tasks;
- (iv) counterpart engineers and staff for coordination, liaison, and transfer of knowledge; and
- (v) supervision vehicles (including driver, fuel, and maintenance through works packages).

**OUTLINE TERMS OF REFERENCE
FOR ENVIRONMENT, SOCIAL DEVELOPMENT, CONTRACT AND PROJECT
MANAGEMENT CONSULTANTS (INDIVIDUAL CONSULTANTS)**

A. Scope of Services

1. Consultants in the fields of environmental safeguards (including climate change), social development (involuntary resettlement, indigenous peoples, gender, and poverty assessment), and project and contract management will be recruited for the South Asia Subregional Economic Cooperation Airport Capacity Enhancement Project in Nepal. The venues of workshops and training will be arranged separately in consultation with the executing agency, the Civil Aviation Authority of Nepal (CAAN).

1. Environment Expert(s) (National, intermittent, 12 person-months)

2. **Objective and purpose of the assignment.** The consultant will (i) assist CAAN in monitoring and preparing environmental safeguard monitoring reports, and ensuring that requirements of environmental monitoring plans (EMPs) are adhered by the contractor; and (ii) provide advice on managing impacts and compliance with local and international environmental safeguard standards, policies, and regulations, including that of the Asian Development Bank (ADB).

3. **Scope of work.** This aims to complete and/or help complete environmental safeguard monitoring reports in full compliance with local and international standards, policies, and guidelines, including ADB guidelines and methodologies, by undertaking the review of project design, site assessment, and available information on specific project sites and similar projects.

4. **Detailed tasks and/or expected output.** Specifically, the consultant will perform, but not be limited to, the following:

- (i) assist and advise CAAN on environmental impact assessment issues as required;
- (ii) supervise data collection and analysis for environmental impact assessment design reviews;
- (iii) monitor progress and evaluation of environmental impact assessment and social impacts of construction works;
- (iv) scrutinize the contractor's construction method statement for compliance of environmental and social aspects;
- (v) supervise the contract in all matters concerning environmental and social aspects;
- (vi) monitor compliance with the environmental management plan (EMP) and resettlement plan of both the Tribhuvan International Airport (TIA) and Gautam Buddha Airport (GBA) Terminal 2 (T2);
- (vii) prepare consolidated monthly and quarterly progress reports of social and environmental monitoring of TIA and GBA T2 components, and any other reports required by CAAN and ADB related to the project; and
- (viii) provide capacity building programs on environmental safeguards, as necessary.

5. **Minimum qualification requirements.** The consultant should have a master's degree in environmental science, environmental engineering, environmental management, or relevant discipline. The consultant should have at least 10 years of experience in conducting environmental impact assessment and environmental safeguard implementation, preferably within the South Asia region. Preference will be for the candidate with experience in working on

projects financed by international development agencies such as the World Bank, ADB, etc.

2. Social Development Expert(s) (National, intermittent, 12 person-months)

6. **Objective and purpose of the assignment.** The consultant will (i) assist CAAN in monitoring and preparing social safeguard monitoring reports, and ensuring that requirements of resettlement plans or due diligence reports are adhered by the contractor; and (ii) provide advice on managing impacts and compliance with local and international social safeguard standards, policies, and regulations, including that of ADB.

7. **Scope of work.** This aims to complete and/or help complete social safeguard monitoring reports in full compliance with local and international standards, policies, and guidelines, including ADB guidelines and methodologies, by undertaking review of project design, site assessment, and available information on specific project sites and similar projects.

8. **Detailed tasks and/or expected output.** Specifically, the consultant will perform, but not be limited to, the following:

- (i) assist and advise CAAN on social (including gender) issues as required;
- (ii) monitor progress and evaluation of social impacts of construction works;
- (iii) scrutinize the contractor's construction method statement for its compliance with social aspects;
- (iv) supervise the contract in all matters concerning social aspects;
- (v) monitor compliance with the resettlement plan and/or due diligence reports of both the TIA and GBA T2;
- (vi) prepare consolidated monthly and quarterly progress reports of social monitoring of TIA and GBA T2 components, and any other reports required by CAAN and ADB related to the project; and
- (i) provide capacity building programs on social safeguards, as necessary.

9. **Minimum qualification requirements.** The consultant should have in the minimum a master's degree in anthropology, social science, environmental science or related fields. He/she shall also have minimum 8 years of experience in preparing social safeguard documents, conducting social impact assessments, and/or monitoring social safeguard issues in infrastructure projects, including in projects financed by ADB, the World Bank or other multilateral development institutions. Experience in South Asian countries is preferred.

3. Contract Management Expert(s) (International, intermittent, 6 person-months)

10. **Objective, purpose, and scope of the assignment.** The consultant will (i) assist in reviewing claims, extension of times, and other contract issues as required; (ii) advise on legal and contractual issues in recruitment and procurement relating to implementation of contracts; and (iii) monitor and assist in implementation of agreed actions in the Strategic Procurement Plan (SPP) and Project Procurement Risk Assessment (PPRA).

11. **Detailed tasks.** The specific tasks are, but not limited to, the following:

- (i) verify, examine, and certify interim payment certificates received from contractors and consultants;
- (ii) assist CAAN in the administration of all contracts in this project;

- (iii) assess procurement capacity of the executing agency and propose capacity enhancement measures as necessary;
- (iv) monitor compliance with the actions from the SPP and PPRA;
- (v) prepare regular reports of implementation of actions from the SPP and PPRA, and any other reports required by CAAN and ADB related to the project; and
- (vi) provide on-the-job training and advice on ADB procurement regulations and policies as well as FIDIC documents and FIDIC-based contract management.

12. **Required qualifications.** The consultant shall have a bachelor's degree in civil engineering or related field, with 20 years of relevant professional experience in the areas of transport infrastructure construction. Familiarity with FIDIC and ADB standard bidding document (SBD) contracts is desirable. Working experience in Nepal or South Asia Subregional Economic Cooperation member countries is an advantage.

4. Project Management Specialist (National, intermittent, 12 person-months), as needed

13. **Objective, purpose, and scope of the assignment.** The consultant will (i) assist in the setup of structures to monitor the progress of various contracts under this project from recruitment to procurement, award, and implementation; (ii) assist in the setup of the document handling system to ensure all documents are properly filed and requests are responded to on a timely basis; (iii) assist in the development of the project management information system (PMIS); and (iv) assist in the preparation, collation, and dissemination of project data and reports.

14. **Detailed tasks.** The specific tasks are, but not limited to, the following:

- (i) set up a project management structure to monitor progress of contracts under this project from recruitment to procurement, award, and implementation;
- (ii) assist in the setup of the document handling system to ensure all documents are properly filed and requests are responded to on a timely basis;
- (iii) assist in the development of the project management information system (PMIS);
- (iv) prepare regular monitoring reports and any other reports required by CAAN and ADB related to the project; and
- (v) provide on-the-job training on project management, as necessary.

15. **Required qualifications.** The consultant shall have a bachelor's degree in business administration and relevant minimum 10 years of experience in project management activities in engineering and/or construction fields. Working experience in Nepal or South Asia Subregional Economic Cooperation member countries is an advantage.

**INDICATIVE TERMS OF REFERENCE FOR THE NEXT PHASE DESIGN CONSULTANTS
SECOND INTERNATIONAL TERMINAL BUILDING
AT TRIBHUVAN INTERNATIONAL AIRPORT**

A. Background

1. The Government of Nepal has received a loan from the Asian Development Bank (ADB) for the South Asia Subregional Economic Cooperation Airport Capacity Enhancement Project. The objective of the project is to enhance transport connectivity through improved efficiency in air transport. The project comprises detailed design of future pipeline projects in the air transport sector. The government intends to apply a portion of the proceeds to engage a firm of international consultants to assist the Civil Aviation Authority of Nepal (CAAN) (the employer) in undertaking preparatory activities for the processing of a future loan or grant for further capacity enhancement and safety improvement at Tribhuvan International Airport (TIA) for funding by ADB or other donor agencies.

B. Objectives of the Assignment

2. The main objectives of the consulting services are to (i) review the current 2016 master plan of the TIA, (ii) carry out detail engineering design and preparation of bidding documents for procurement of works and equipment, and (iii) assist CAAN to undertake a public-private partnership project (PPP) in the air transport sector.

3. The major components of the proposed improvement works at TIA, which include capacity development support to CAAN on PPP projects, are as follows:

A. Landside Infrastructure Development and/or Improvement Works		
A-1	New second international terminal building (ITB), multilevel. The facilities in Terminal 2 (T2) will consist of the special airport system including (i) fully automated baggage handling system; (ii) airport operation center comprising various airport operation systems such as flight information display system (FIDS), airport operational database (AODB), computer rooms and fittings, etc.; (iii) security control system for passenger, staff, and baggage; (iv) access control between various ITB areas; and (v) closed-circuit television (CCTV). Airside interface will include gates, passenger boarding bridges, and visual docking guidance system. Landside interface will include the viaduct or other options as appropriate. Consideration will be given to the development of a new T2 under public-private partnership (PPP).	Detail design
A-2	Reconfiguration of existing ITB (area = 22,000 square meters) to operate as the domestic terminal	Detail design
A-3	New access road and multistory car park for the new T2 complex. Consideration will be given to planning and design of the interface between the new T2 and a future mass rapid transit (MRT) station.	Detail design
A-4	Review and update water supply improvement for the airport. The development will include the following: <ul style="list-style-type: none"> • Relocation of the existing water supply system at the northwest side of the airport • New water supply system comprising new deep wells, treatment plant, distribution system, etc. • Provision of fire hydrants at airside and landside 	Detail design
A-5	Review and update the sewage treatment plant for the airport.	Detail design

B. CNS/ATM Equipment		
B-1	Review improvements on communication, navigation, and surveillance (CNS) and air traffic management (ATM) that are ongoing and proposed under the radar project being assisted by the Japan International Cooperation Agency (JICA). Identify further improvement needs on CNS/ATM at TIA to be included in the next project in consultation with CAAN. Prepare detail design of the priority improvements.	Detail design (priority improvements)
C. Dedicated Surface Transportation System to TIA		
C-1	The development will consider a dedicated surface transportation system for TIA linking with key road transportation nodes—Koteshwor (Tinkune) and Gaushala—and serving traffic flows from Kathmandu, Patan, and Bhaktapur. The development will include road, viaduct, or other appropriate options to provide dedicated airport access from these transportation nodes.	Detail design
D. Capacity Development Support for PPP Projects		
D-1	<p>Review and assess current discussions and initiatives on PPP in infrastructure development in the country. For this purpose, review the reports and assessments conducted under the Air Transport Capacity Assessment Project (ADB Loan No. 2581 and Grant No. 0181), which include review and assessment of government/CAAN laws, acts, policies, plans, regulations, best international and national practices, financial and investor issues, institutional framework, etc., in consultation with the National Planning Commission, Nepal Investment Board, CAAN, and relevant line ministries, etc.</p> <p>Assist in assessing future development/construction and operation of T2 in TIA and the operation of Gautam Buddha Airport (GBA) under PPP in consultation with CAAN. This will take into account feasible PPP modes, management, contractual and financial arrangements, risk assessment, and the context of the future role of CAAN.</p> <p>Based on detailed design and costing, identify the potential of airport works/subprojects for PPP undertaking. Assess financial regimes (investment, return) and conduct financial analysis to project financial implications for potential PPP projects. Prepare prequalification documents, expression of interest, terms of reference, bidding/contract documents, and concession agreements for PPP projects.</p> <p>Finalize recommended action plans for the priority PPP projects including implementation steps, timelines, and key issues to be addressed for successful implementation of the project. Support CAAN in implementing the action plans.</p>	Detail study

C. Scope of Services

1. Review 2016 Master Plan of Tribhuvan International Airport

4. The consultant will review the current 2016 master plan (2010–2028) of TIA for further development and improvement of TIA. This will mainly include the following:

- (i) review the current 2016 master plan of TIA and update;
- (ii) propose the location for the second international terminal building (T2/ITB); carry out detailed design, drawings, and cost estimate; and prepare bidding documents;
- (iii) review and update air traffic flows and projections (aircraft, passengers, and cargo on annual basis; peak hour movements), also taking into account the ongoing construction of the Gautam Buddha Airport (GBA) at Bhairahawa, the regional International Airport at Pokhara, and the proposed Second International Airport at Nijghad;
- (iv) capacity analysis of runway and taxiway system in conjunction with available air space and the communication, navigation, and surveillance (CNS) system;
- (v) assessment of facilities requirements and location and layouts, and propose rearrangement of phased development/improvement of TIA, if any, in the current master plan. Consideration will be given to identify a commercially viable investment plan that takes care of expansion needs on the basis of practical and sustainable phasing, project sizing, investment phasing, etc. The consultant will make use of geographic information system (GIS) tools in updating the airport master plan along with detailed facilities and essential aeronautical and non-aeronautical data;
- (vi) prepare Obstacle Limitation Surfaces for the ultimate development plan of TIA;
- (vii) prepare a noise contour plan based on currently used aircrafts at TIA and develop a land use plan considering the noise contour plan; and
- (viii) while designing new facilities, special consideration shall be given to safety and security measures to be undertaken during its implementation.

2. Detail Engineering Design and Cost Estimate

Task 1 Carry out engineering surveys and geotechnical investigation required for the design.

Task 2 Carry out options study for TIA T2, preliminary design, and assessment to select optimum solutions for the proposed improvement works.

Task 3 Carry out detail design for all improvement works and equipment in accordance with best applicable international standards—including the preparation of detail design drawings in sufficient details for accurate determination of quantities and costs. The design will include, but not be limited to, the following:

- (i) Site plan for all works within and outside the airport property
- (ii) Engineering design for drainage works related to the proposed landside improvement works
- (iii) Engineering design of water supply, drainage, sewerage system, including fire hydrants for landside facilities
- (iv) Architectural, interior, structural, mechanical, electrical, information technology (IT) system, utilities design, for the new TIA T2, including layout plan for

placement of interior furnishings, fittings, airline operational equipment, automated baggage handling system, gates and air bridges for passenger boarding, visual docking guidance system, airport operation control center in combination with airport emergency center, security control system, access control between various ITB areas, CCTV, firefighting/sprinkler system, etc. Appropriate interface among all the systems including flexibility will be required. Most of the special airport systems will be designed up to a performance specification level to allow good completion between manufacturers and suppliers. Special consideration will be given for smooth/efficient passenger processing and allocation of maximum terminal areas for concessionaires in order to generate maximum non-aeronautical revenues.

- (v) Architectural, interior, structural, mechanical, electrical, IT system, utilities design including CCTV, firefighting/sprinkler system for the new multistory car park and conceptual future MRT station
- (vi) Architectural, interior, structural, mechanical, electrical, IT system, utilities design, for reconfiguration of the existing ITB and conversion for use as domestic terminal building, including layout plan for placement of interior furnishings, fittings, airline operational equipment, security screening system, etc.
- (vii) Engineering design for landscaping at airside and landside areas

Task 5 Prepare technical specifications for each work item, taking into account relevant technical specifications in use in the country and major international standards for similar works. Particular consideration will be given to a performance specification level of the special airport systems to enable good completion among the manufacturers and suppliers. The specifications shall integrate operational costs, maintenance criteria, testing, commissioning process, etc.

Task 6 Prepare estimated quantities and costs of all proposed improvement works and equipment with best possible accuracy.

Task 7 Prepare 3D physical model (1:2000) of the TIA master plan including access to TIA and 3D audio-visual (movie, 10 minutes duration) presentation of TIA facilities.

3. Contract Packaging, Implementation Schedules, and Bidding Documents

Task 8 Prepare contract packages, taking into account optimization of contract administration, construction coordination, competitive pricing, and ADB's Guidelines for Procurement.

Task 9 Prepare engineering project implementation schedules showing anticipated progress of works and expenditures for each contract package.

Task 10 Based on the type of bidding procedures and contracts packaging, as advised by the employer, prepare bidding documents for works and equipment packages. The bidding documents shall be prepared in accordance with ADB's latest applicable Standard Bidding Documents (SBD) available in the ADB website. In preparation for bidding/contract documents, appropriate consideration will be given to the safety management system and security control system of TIA, environmental impact mitigation, and management of the works.

4. Assessment of Private Sector Engagement in Financing and Operation of the Terminal Building

- Task 11** Review and assess current discussions and initiatives on PPP in infrastructure development in the country. For this purpose, review the reports and assessments conducted under the Air Transport Capacity Enhancement Project (ADB Loan No. 2581 and Grant No. 0181) and the Transport Project Preparatory Facility (ADB grant), including review and assessment of government/CAAN laws, acts, policies, plans, regulations, best international and national practices, financial and investor issues, institutional framework, etc., in consultation with the National Planning Commission, Nepal Investment Board, CAAN, and relevant line ministries.
- Task 12** Review and assess revenue projections (aeronautical revenues and prospective non-aeronautical revenues) and capital and operational costs of TIA and GBA.
- Task 13** Undertake inventory of existing contracts of TIA and GBA with retail shops, airlines, contractors, etc. with respect to revenue earning.
- Task 14** Assist in assessing future development/improvement plan of TIA and GBA under PPP in consultation with CAAN. This will take into account feasible PPP modes, management, contractual and financial arrangements, risk assessment, and context of the future role of CAAN.
- Task 15** Based on the abovementioned engineering design and costing, identify the potential of airport works/subprojects for PPP undertaking. Assess financial regimes (investment, return) and conduct financial analysis to project financial implications for potential PPP projects.
- Task 16** Develop technical, operational, and financial criteria to be considered in the evaluation of prospective bidders and prepare prequalification documents, expression of interest, terms of reference, bidding/contract documents, and concession agreements for PPP projects.
- Task 17** Finalize recommended action plans for the priority PPP projects including implementation steps, timelines, and key issues to be addressed for successful implementation of the project. Support CAAN in implementing the action plans.
- Task 18** Conduct PPP workshops, seminars, and training; organize field visits to successful PPP projects.

C. Team Composition

5. The consulting services will be implemented over about 15 calendar months from the commencement date.

6. The consulting services will be implemented by a firm of international consultants. An association or direct engagement of suitable national consultants is encouraged to complement the consultant's local knowledge and experience. It is anticipated that the following international and local staff will be required:

International Staff

S.N.	Position	Qualification Requirement	Number	No. of Person-Months
1	Team leader/chief airport engineer	B.E./B.Sc. Civil Engineering (Postgraduate/Diploma in Airport Engineering is desirable.)	1	8
2	Principal airport terminal architect	B. Architecture (Specialized training in Airport Terminal Design is desirable.)	1	8
3	Terminal interior designer	B. Architecture or Diploma in Interior Design (Training in Airport Terminal Interior is desirable.)	1	2
4	Structural engineer	B.E./B.Sc. in Civil Engineering (M.Sc./Postgraduate diploma in Structural Engineering is desirable.)	1	5
5	Mechanical engineer	B.E./B.Sc. in Mechanical Engineering	1	3
6	Baggage handling system (BHS) engineer	B.E./B.Sc. in Mechanical Engineering (Specialized training in BHS Design/ Manufacturing is desirable.)	1	2
7	Electrical engineer	B.E./B.Sc. in Electrical Engineering (Specialized training in Power Supply, VDGS, SMGS and Airfield Lighting is desirable.)	1	2
8	Utility engineer (water supply, sanitary, sewerage, and drainage)	B.E./B.Sc. in Civil or Mechanical Engineering (Postgraduate/Diploma in Water Supply/Sanitary or specialized training in Airport Utilities Systems is desirable.)	1	3
9	PPP specialist	B.A./BBA/LLB (Training in finance/or economics/or international law is desirable.)	1	2
10	Procurement specialist	B.E./B.Sc. in any engineering course or bachelor's degree in relevant social sciences (Familiarity with FIDIC, MDB Procurement Guidelines is desirable.)	1	2
	Subtotal			37

National Staff

S.N.	Position	Qualification Requirement	Number	No. of Person-Months
Key Experts				
1	Deputy team leader (DTL)/airport engineer	B.E./B.Sc. Civil Engineering (Postgraduate/Diploma in Airport Engineering is desirable.)	1	15
2	Architect	B. Architecture (Specialized training in Airport Passenger/Cargo Terminals, Hangar Design is desirable.)	1	10
3	Interior designer	B. Architecture or Diploma in Interior Design (Training in Airport Terminal Interior is desirable.)	1	3
4	Structural engineer	B.E./B.Sc. in Civil Engineering (M.Sc./Postgraduate diploma in Structural Engineering is desirable.)	1	8
5	Mechanical engineer	B.E./B.Sc. in Mechanical Engineering	1	6
6	Electrical engineer	B.E./B.Sc. in Electrical Engineering (Specialized training in Power Supply, VDGS, SMGS and Airfield Lighting is desirable.)	1	5
7	Procurement specialist	B.E./B.Sc. in any engineering course or bachelor's degree in relevant social sciences (Familiarity with FIDIC, MDB Procurement Guidelines is desirable.)	1	5
8	Environmental specialist	B.E./B.Sc. in any engineering course or bachelor's degree in relevant social sciences (Postgraduate in Environmental Sciences/Management is desirable.)	1	3
9	Resettlement/safeguard specialist	B.E./B.Sc. in any engineering course or bachelor's degree in relevant social sciences (Postgraduate in Environmental Sciences/Management is desirable.)	1	3
Subtotal				60
Non-Key Experts				
10	CAD engineers [as required numbers (ARN)]		1	10
11	GIS expert/engineer		1	6
12	Quantity survey engineer		1	8
Subtotal				24
National Support Staff				
13	Office manager		1	15
14	Office secretary		1	15
15	Messengers		1	15
Subtotal				45

7. The international inputs shall be provided by the consultant based in the field (i.e., Kathmandu, Nepal). However, the consultant may consider providing certain inputs of few

positions from the head office or any other location outside the country as required for the purpose of betterment and support to carry out the services more effectively. The consultant shall provide the rationale and estimates of such inputs in the technical and financial proposals.

8. The estimated person-months are indicative, and the actual will vary based on actual duration of works and will be paid on actual time basis. As common basis for financial proposal, the consultants *must* use the indicative staff person-months as listed in the tables.

9. The costs of the engineering survey, geotechnical investigations, preparation of 3D model of TIA including access to TIA, preparation of 3D audio-visual presentation of TIA facilities, airport familiarization visit by employers' staff, and costs of training including seminars/workshops, will be covered under provisional sums.

D. Reporting Requirements and Time Schedule for Deliverables

10. The consultant shall prepare and submit the following reports in the English language (5 copies for client and 2 copies for ADB). The final report shall be prepared in hard copy and electronic copy. The consultant shall hand over all original digital files (e.g., Word, PDF, CAD, Excel).

Report	Description/Technical Accomplishments	Timeframe
Inception report	(i) Initial findings, project schedule, and, if appropriate, review and recommendations for preliminary design (ii) Design criteria and approach (iii) Staff mobilization schedule	1.0 month from the commencement date
Report on updated master plan	Air traffic projection, capacity analysis, updated master plan of TIA, development plan	3.0 months from the commencement date
Standard bidding documents (for construction and PPP transaction)	Standard bidding documents for preliminary review (excluding BOQ, specifications, and design drawings) and PPP transaction	4.0 months from the commencement date
Interim design report	Design review (for existing design) and preliminary design (for new works and equipment), survey and investigation reports, and progress of design for all components	5.0 months from the commencement date
Draft final design report	Detail design for all components, cost estimates, initial 3D audio-visual presentation of TIA facilities	10.0 months from the commencement date
Draft bidding documents	For all works and equipment packages	12.0 months from the commencement date
Final bidding document (for construction and PPP transaction)	For all works, equipment packages, and PPP transaction—incorporating Employer/ADB's comments on SBD and including BOQ, specification, and design	13.0 months from the commencement date
Final report	Detail compilation of all component deliverables including updated master plan of TIA, 3D model, and 3D audio-visual presentation of TIA facilities	15.0 months from the commencement date

3D = three dimensional, ADB = Asian Development Bank, BOQ = bill of quantities, PPP = public-private partnership, SBD = standard bidding documents, TIA = Tribhuvan International Airport
Source: Civil Aviation Authority of Nepal.

E. Client's Input

11. Services, facilities, and property to be made available to the consultant by the client include the following:

- (i) office accommodation including utilities;
- (ii) access to site, data, survey reports, and other relevant records and information required to perform the assigned tasks; and
- (iii) an electronic copy of all existing data and design of components requiring design review will be provided before the commencement of the services.

QUARTERLY PROGRESS REPORT TEMPLATE

Project: -----

Loan: -----

**Quarterly Progress Report
(For the Quarter MM/YY – MM/YY)**

Executing and Implementing Agency

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<p>Attachment F1: Status of Ongoing Contract Packages – <i>to be created by CAAN</i></p> <p>Attachment F2: Status of Consultant Staffing – <i>to be created by CAAN</i></p> <p>Attachment F3: Consultants' Performance Evaluation Report – <i>to be created by CAAN</i></p> <p>Attachment F4: Detailed Reconciliation (by Withdrawal application) of Project Records and ADB Disbursement Records (LFIS/GILFIS) for the Fiscal Year To Date and Cumulative</p> <p>Attachment F5: Status of Financial Management Action Plan (Completed/Ongoing)</p> <p>Attachment F6: Status of Past Audit Observations (Resolved/Pending)</p>	

CHAPTER 1 PROJECT AT A GLANCE

Brief project description to be filled by project team (one-time entry; to be updated only in case of change).

1. Loan Milestone

Milestone	Approval	Signing	Effective	Original Closing	Revised Closing
Dates					
Extensions (Nos.)				Time Remaining	

2. Loan Utilization Status (\$ million)

Cat.	Description	Allocation	Contracts	Unutilized Loan Balance	Disbursed	Undisbursed Contract Balance	Overall Undisbursed
		(a)	(b)	(c) =(a-b)	(d)	(e)=(b-d)	(f)=(a-d)

3. Potential Loan Savings (if any) and Likely Cancellation Date

4. Status of Counterpart Funds (\$ million)

Required Counterpart Expenditure by the Executing Agency	Budgeted by State Government in Current Financial Year	Actual Amount Released	Shortfall/Excess
1. Non-reimbursables Activities fully funded by the EA (LA/R&R etc.)			
2. Reimbursables (From loan)			

EA = executing agency, LA = land acquisition, R&R= resettlement and rehabilitation.

5. Status of Contract Awards and Disbursements (\$ million) in CY XXXX

Indicator	Quarter	I	II	III	IV	Total
Contract Award	Target					
	Achieved					
	Balance					
Disbursement	Target					
	Achieved					
	Balance					

[Targets: For the ADB financing, compare the actual disbursement with the disbursement projections as per the S curve included in the project administration manual. Include an analysis of significant variances between planned and actual disbursements.]

6. Status of Project Reports to be Submitted to ADB

Type of Reports	Frequency	Due Date	Status
Environmental Monitoring Report			
Social Monitoring Report			
Audited Project Accounts			
Gender Action Monitoring Report			

CHAPTER 2 STAFFING

1. Status of PMU/PIU Staffing

1a	Is the Project Director currently posted?	Yes/No	Nature of Project Director posting	Part-Time/Full-Time
1b	Current Project Director is posted since when?			
2a	Number of PMU staff as agreed with ADB or as per organizational structure in PAM/FAM/RRP		Actual number of PMU staff in place at present	
			Full-time	
			Additional charge	
2b	Details of PMU positions which are currently vacant			
3a	Are PIUs required to be established in the project?		Are PIUs fully staffed?	
3b	Number of PIUs required as agreed with ADB in the organizational structure in PAM/FAM/RRP		Actual number of PIUs	

ADB = Asian Development Bank, FAM = facility administration manual, PAM = project administration manual, PIU = project implementation unit, PMU = project management unit, RRP = report and recommendation of the President,

2. Mobilization Status of Consultant's Staffing (Key Expert Positions) and Their Performance

[Please provide your overall feedback in narrative statement (e.g., key issues, overall performance, etc.) and attach staffing status and Consultant's Performance Evaluation Report (PER) as attachments F2 and F3.]

CHAPTER 3
STATUS OF PROCUREMENT AND CONTRACT MANAGEMENT

A. Status of Contracts Awarded

Cost Category under which Procurement is Carried Out	ADB Financing	Cumulative Contract Awards	Uncontracted Loan Balance	Cumulative Disbursements
Civil Works	\$... million	\$... million (xx Packages awarded)	\$... million	\$... million
Equipment	\$... million	\$... million (xx Packages awarded)	\$... million	\$... million
Consultants	\$... million	\$... million (xx Packages awarded)	\$... million	\$... million
Total	\$... million	\$... million	\$... million	\$... million

[Please attach Contract Monitoring Sheet indicating the status of each of the awarded contracts as Attachment F1.]

B. Status of Remaining Procurement

S.N.	Component	Remaining Contract Packages			
		No. of Packages with Cost	Brief Scope	Current Stage	Target Date of Award
1	Civil Works	xx (\$... million)	Kilometers (km) of road rehabilitation/ house service connections in xx towns	<ul style="list-style-type: none"> • Invitation for bids (IFB) to be issued • Under technical evaluation • Under financial evaluation • Under contract negotiation • Under contract signing 	MM/YYYY
2	Equipment	xx (\$... million)			MM/YYYY
3	Consultants	xx (\$... million)			MM/YYYY
	Total xx Packages	\$xx million			(Target date of the latest procurement)

CHAPTER 4 PROGRESS ON PROJECT OUTPUTS (As in Design and Monitoring Framework)

DESIGN AND MONITORING FRAMEWORK

Impact(s) the Project is Aligned with:
Tourism-led economic development in Nepal enhanced (Ministry of Culture, Tourism, and Civil Aviation. 2016. National Tourism Strategic Plan for the period of 2016–2025. Kathmandu)

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Safety, capacity, and efficiency of air travel to and from Nepal improved	By 2027, a. Average daily international aircraft movements at TIA increased to at least 52 (two-way) (2019 baseline: 13) By 2027, b. Average daily international aircraft movements at GBIA increased to at least 7 (two-way) (2020 baseline: Not applicable) By 2027, c. Number of international passengers increased to at least 5.4 million annually at TIA (2019 baseline: 4.1) By 2027, d. Number of international passengers increased to at least 695,191 annually at GBIA (2020	a. CAAN annual report b. CAAN annual report c. CAAN annual report d. CAAN annual report e. ICAO safety audit result report	Disasters triggered by natural hazards may adversely affect the number of tourists. Prolonged effects of COVID-19 may adversely affect the number of tourists. The ban of Nepalese flights to other countries may not be lifted.

	baseline: Not applicable) By 2027, e. Effective implementation score in organization category improved to at least 70% (2020 baseline: 50)		
Outputs 1. TIA airside facilities completed in accordance with the TIA master plan	By 2026, 1a. Southern parallel taxiway extended by 1,150 meters (2020 baseline: Not applicable) By 2026, 1b. Two remote domestic aprons constructed (2020 baseline: Not applicable)	1a. CAAN progress reports 1b. CAAN progress reports	Change of the government policy on the civil aviation sector regulatory framework hampers project implementation.
2. International terminal building constructed at GBA constructed (Terminal 2)	By 2027, 2a. A new international terminal building constructed with GESI and climate change specific facilities and features (2020 baseline: Not applicable)	2a. CAAN progress reports	
3. Next phase of TIA works design completed	By 2026, 3a. Design of new international terminal building in TIA completed with GESI and climate change facilities and features (2020 baseline: Not applicable)	3a. CAAN progress reports	
Key Activities with Milestones			
<p>Output 1. TIA airside facilities completed in accordance with the TIA master plan</p> <p>1.1 Award civil works contract for the airside facilities at TIA (July 2021) (Q3 2021)</p> <p>1.2 Complete construction of all works (December 2026) (Q4 2026)</p> <p>Output 2. International terminal building constructed at GBA constructed (Terminal 2)</p> <p>2.1 Award civil works contract for the international terminal building at GBIA (December 2021) (Q4 2021)</p> <p>2.2 Complete all works (December 2026) (Q4 2026)</p> <p>Output 3. Next phase of TIA works design completed</p> <p>3.1 Award design consultant (Dec 2021) (Q4 2021)</p>			
Inputs			
COL - US\$ 150,000,000			
Govt - US\$ 48,000,000			
Assumptions for Partner Financing			
Not Applicable			

Source: Asian Development Bank

**CHAPTER 5
STATUS OF ACTION PLAN**

[Please include issues previously discussed during previous
ADB Review Missions/Tripartite Portfolio Review Meetings/Progress Report
and their compliance/status.]

S.N.	Issues/Action Plan	Responsibility	Time Frame	Status

**CHAPTER 6
COMPLIANCE WITH MAJOR COVENANTS**

S.N.	Covenants	Compliance (Y/N)*	Remarks
1			
2			
3			
4			
5			
6			

* In case of any exceptions, deviations, and non-adherence identified, please provide details as an "Annex" to the Quarterly Progress Report highlighting the shortcomings and proposed time-bound corrective action plans to achieve compliance.

CHAPTER 7
KEY IMPLEMENTATION ISSUES/CHALLENGES
AFFECTING PROJECT PROGRESS AND PROPOSED ACTIONS

S.N.	Major Issues*	Actions	Responsibility	Time Frame
1	Planning issues [Change in design/scope/ implementation arrangement/ cost overrun/staffing, etc.]			
2	Contract and construction issues Mobilization of contractor(s)/ Issuance of good-for- construction drawings/Utility sifting/Handing over site/ Variations orders, etc./Pending payments			
3	Safeguard issues during construction [Land acquisition/resettlement/ tree cutting/to the contractor(s)]			
4	Other issues			

* In case of issues identified, please provide details (e.g., details of change in design/ implementation arrangements, pending safeguard actions, encumbrance free sites to be handed over to the contractor (numbers/kilometers) with targeted date by which the same could be handed over to the contractor. If all drawings/designs are not issued/approved, give the name of such drawings/designs and targeted date by which the same could be handed over to the contractor; decision pending with employer and consultants (such decision could be approval of, variations, extra item rate, etc.).

**CHAPTER 8
FINANCIAL MANAGEMENT AND RECONCILIATION
WITH ADB DISBURSEMENT RECORDS**

A. Reconciliation of Project Records and ADB's Disbursement Records

[Include here a summary reconciliation of project records and Asian Development Bank (ADB) disbursement records (Loan Financial Information System) for the reporting period and cumulative from the project inception to the end of the reporting period. Explain reasons for discrepancies and outline follow-up actions required, if any. Attach a detailed reconciliation by withdrawal application (WA) as per Attachment F4.]

B. Status of the Project's Financial Management Arrangements

[Include here the following:

- Describe any problems in the existing financial management (FM) arrangements and/or flow of funds and any significant changes that occurred during the reporting period (e.g., FM staff turnover, implementation of new financial systems, emerging FM-related risks, etc.).
- Summarize the status of each agreed action in the FM action plan outlined in the project administration manual (PAM). Attach a detailed log as per Attachment F5.
- Outline the status of recommendations and immediate actions provided by ADB as part of the audited project financial statement/audited entity financial statements (APFS/AEFS) review, if any, and FM-related recommendations agreed during ADB review missions, if any.
- Summarize the status of past audit observations, if any. Attach a detailed log as per Attachment F6.

**ATTACHMENT F4: Detailed Reconciliation (by Withdrawal Application) of Project Records
and ADB Disbursement Records (LFIS/GILFIS) for the Fiscal Year To Date and Cumulative**

Withdrawal Application Details			Per Project Records/APFS (Amount Recorded in the Project Financial Statements as Reimbursement, Direct Payment, etc.)				Per ADB Disbursement Records LFIS/GFIS (Actual Paid)			
Withdrawal Application (WA)	Disbursement Method (Reimbursement, Direct Payment, etc.)	Time Period Covered in the WA	Date	In Local Currency (as recorded in project records/ financial statements)	Exchange Rate	US Dollar Equivalent (A)	Value Date	In US Dollar (B)	Difference (A-B)	Reason for Difference (i.e., timing forex. Pending rejected)
No WA										
1		1-31.3.2020		XX		XX		XX		
2				XX		XX		XX		
3				XX		XX		XX		
etc.										
Total in Fiscal Year To Date				XX		XX		XX		
Total Cumulative To Date				XX		XX		XX		

ATTACHMENT F5: Status of Financial Management Action Plan (Completed/Ongoing)					
Key Risk	Risk Mitigating Activity	Timeline	Responsible Entity	Current Status (Implemented/Pending)	Remarks (Including planned actions and timeline in case of noncompliance)

ATTACHMENT F6: Status of Past Audit Observations (Resolved/Pending)

Recommendation/ Audit Observation	External Audit Recommendation	Date of the Recommendation	Planned Action to Address the Recommendation	Responsibility	Current Status of the Planned Action (Pending/Resolved)	Remarks

