

## TERMS OF REFERENCE

### Rarotonga Airport Infrastructure Upgrade Project

#### A. Background and Objectives

1 The Government of the Cook Islands (the Government) has requested for a transaction technical assistance (TA) from the Asian Development Bank (ADB) to identify, formulate, and prepare an ensuing loan for the Rarotonga Airport Infrastructure Upgrade Project (the Project). ADB intends to engage a firm of international consultants (the Consultant) to prepare a feasibility study, which will include: (i) assessing performance, problems and opportunities in the air transport subsector; (ii) assessing/updating traffic forecast, reviewing current air infrastructure capacity, and updating the Rarotonga International Airport master plan; (iii) identifying prioritized improvements; (iv) conducting appropriate site condition surveys and preparing preliminary engineering design and cost estimates; and (v) preparing economic and financial assessment; and (vi) conducting social and environmental assessment in accordance with ADB's Safeguard Policy Statement 2009 (SPS), ADB's Environmental Assessment Guidelines (2003) as well as Government's regulations and policies.

#### Scope of Services

##### Task 1. Air Transport Sector Assessment

- (i) Present an overview of the sector's performance and strategic directions, including key sector indicators – air transport network, current and projected traffic (air craft movements, passenger and cargo)
- (ii) Summarize major issues and constraints - the factors that promote and/or limit successful sector performance and service delivery, including the following:
  - Air infrastructure capacity, safety and security;
  - Government's policy, institutional, legal, and regulatory frameworks;
  - Role and capacity of concerned agencies and critical areas for developing capacity, and the commitment to institutional reform;
  - Recent trends in current and capital expenditures, including the type and composition of expenditures (developmental, recurrent, and others); and
  - Roles of the public and private sectors - including a review and documentation of existing legislation and regulations as they may affect or impact private investment.
- (iii) Summarize major challenges and opportunities – including specific bench mark baseline (current) and target indicators (i.e. international and domestic passenger/cargo volumes, safety and capacity standards, and etc.)
- (iv) Assess regional and non-regional air transport connectivity in terms of passenger and freight and identify constraints and opportunities.
- (v) Government's sector strategy - summarizing the Government's sector strategy, policies, and sectoral public investment plan and discuss the feasibility of implementing it.

**Task 2. Traffic Assessment and Airport Planning**

- (i) Review and update available traffic forecasts<sup>1</sup> by collecting newly available data for actual traffic, undertaking traffic forecasts (taking into account Government's tourist arrival targets and anticipated airline services), and assessment of the network (e.g., air traffic distribution).
- (ii) Review the existing Rarotonga International Airport Master Plan.<sup>2</sup>
- (iii) Assess current capacity and safety at Rarotonga International Airport.
- (iv) Based on the updated traffic forecast and considering the Government's priorities and goals, update the existing Rarotonga International Airport Master Plan.

**Task 3. Institutional Assessment**

- (i) Study earlier assessment if available, review current institutional arrangement, capacity, and applicable legal framework, and recommend short-term and long-term improvements necessary to enhance organizational effectiveness in view of the likely expanding air transport activities – organizational structure and human resources development.
- (ii) As part of the capacity building activity, identify potential workshops for government representatives on public private partnerships and best practice in promoting such investments in aviation and tourism. The workshop could include case studies and eventually tackle such topics as corporatization, leasing and concession agreements, performance benchmarks, procedures and steps needed to prepare for private-public-partnership.
- (iii) Assess if there is a need to provide support to the Government in preparing necessary legislation and/or regulations in the implementation of the capacity development plan.

**Task 4. Project Implementation Capacity Assessment**

To assess AACI's project implementation capacity, carry out the following assessments in accordance with ADB due diligence guidelines (samples will be provided during TA implementation):

- (i) Assess financial management capacity of AACI - adequacy in terms of project financial accounting, reporting, and auditing in accordance with ADB disbursement procedures. Summarize findings and mitigation measures in a brief to ADB Mission (about 5 pages).

**Task 5. Priority Improvements, Preliminary Engineering and Cost Estimate**

- (i) Based on the updated civil aviation master plan, develop a phased list of priority improvements covering airside (runways, taxiways, parking apron, airport road system, airline operation facilities), and landside (including basic terminal facilities, car parking, commercial operations). Within each phase, the list of recommended improvements should be based on the urgency of need in terms of improving safety,

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<sup>1</sup> Historical traffic data at Rarotonga will be provided by AACI.

<sup>2</sup> Existing studies and report will be made available by the AACI to the consultant before commencement of services – which include the Rarotonga International Airport 2040 Master Plan draft final report (August 2019) and other relevant studies and reports prepared by AACI.

- addressing current and anticipated capacity deficiency, improving the quality of passenger facilities and service standards, ensuring/improving air operations safety, and improving commercial facilities.
- (ii) Prepare functional descriptions and basic design layout drawings for the recommended improvement components in compliance with best international practice and applicable standards. For new or expansion of terminal facilities, it should detail spatial requirements for passenger processing and holding, baggage handling, airline operations, catering, concessions, washrooms, air cargo handling, security, and etc. The basic design layout should achieve optimum combination of simplicity, economy, and constructability - while maximizing the level of services for the passengers. The new or expanded terminal facilities should also be designed to facilitate simple construction, low maintenance, open span, modular, and demountable (for relocation when and if required). The airside improvements should focus on resolving critical operational limitations in terms of safety and capacity. The overall driving rationale is to address the most acute constraints in order to achieve the most immediate and maximum benefit. Assess and discuss, to the appropriate extent, the potential climate resilience measures which could be assessed and incorporated during subsequent design stage.
- (iii) Prepare preliminary cost estimate for each elements of the proposed improvements with indicative foreign and local currency portions - basic aggregate cost without contingency and price escalation factors. Assess and recommend appropriate contingency and price escalation (foreign and local) to be applied as percentage of the basic aggregate cost.

## **Task 6. Economic Assessment**

Based on the updated and costed list of improvements to be included in the ensuing ADB loan and or grant Project (to be decided during the course of the TA), the Consultant will carryout economic assessment of the overall investment, which include the following:

- (i) Develop economic analysis models for the proposed investment in line with ADB's *Guidelines for the Economic Analysis of Projects* (2017)<sup>3</sup>.
- (ii) Assess the economic life of the components and identify the economic benefits of each investment component comparing the with-project and without-project situation - taking into account flows of international and domestic passengers and goods in domestic and foreign trade. This should also include study of net benefit to the poor in the rural area through increased employment and business opportunity.
- (iii) Calculate the economic internal rate of return (EIRR) for the overall investment and conduct sensitivity tests for the EIRR by varying benefits and investment costs.
- (iv) The economic analysis should be presented as following:
- Introduction
  - General considerations
  - Input data for cost components used for the economic analysis
  - Economic benefits (including those due to regional implications)
  - Construction and maintenance alternatives and cost estimates
  - Economic analysis
  - Sensitivity Analysis

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<sup>3</sup> Available at ADB website

- Conclusions – summarizing the economic assessment, approach & methodology, findings (EIRRs and sensitivity analysis), and overall economic viability.
- Appendices: (i) project details (list of proposed improvements); traffic studies (base year traffic, traffic generation, traffic diversion assessments); and economic growth trend and traffic forecast (including the basis).

### **Task 7. Financial Assessment**

Based on the updated and costed list of improvements to be included in the ensuing ADB loan Project, the Consultant will carry out financial assessment of the overall investment, which include the following:

- (i) Develop financial analysis models for the proposed investment in line with ADB's *Financial Analysis and Evaluation Technical Guidance Note (2019)* and *Guidelines for the Financial Governance and Management of Investment Projects Financed by the ADB (2002)*<sup>4</sup>.
- (ii) Calculate the financial internal rate of return (FIRR) for the overall investment and establish the financial viability by comparing the FIRR with the cost of capital, taking into account financial costs and benefits. Sensitivity analysis should be carried out by varying tariff levels, financial revenues, and investment costs.
- (iii) Undertake financial analyses and projections of airport operations to assess the financial sustainability and identify measures to ensure sustainable airport operations, including possible private sector involvement through public-private partnership – such as basic terminal facilities infrastructure and O&M arrangements.

### **Task 8. Financial Sustainability Assessment**

- (i) Assess the financial effect of implementing the Project – such as the EBITDA (Earnings Before Interest, Tax, Depreciation, and Amortization) based on an analysis of revenue sources for AACI, and taking into account the operating, administrative, and staff expenses incurred for the revenue generation resulting from implementing the ensuing Project. Also suggest possible measures to enhance long term financial sustainability. Summarize the findings and mitigation measures in a brief to ADB Mission (about 5 pages).

### **Task 9. Maintenance Assessment**

- (i) Assess the effectiveness of current maintenance arrangements in terms of organization, planning, adequacy of funding, and etc.
- (ii) Identify additional requirements associated with the improvements and or expansion to be undertaken in ensuing project, in terms of organization, human resources, and funding (which should be taken into account under Task 9 – Financial Sustainability Assessment).
- (iii) Recommend other measures such as involvement of private sectors to ensure long term maintenance.

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<sup>4</sup> Available at ADB website

## Implementation Arrangements

2 The consulting services will be implemented by an international consulting firm. An association with a suitable domestic consultant is encouraged to compliment consultant's local knowledge and experience. It is anticipated that the following international and national staff will be required:

International Staff (person-months): 16

Airport Planner/Team Leader (6)  
Airport Terminal Architect (3)  
Airport Pavement Specialist (3)  
Transport Economist (1.5)  
Transport Financial Analyst (1.5)  
Civil Aviation Management/Institutional Specialist (1)

National Staff (person-months): 12

General Civil Engineer (6)  
Cost Specialist (6)

Local Support Staff:

The Consultant should include necessary support staff (i.e. secretaries, CAD specialists, and others as appropriate) in the financial proposal under Out-of-Pocket costs.

3 ADB will directly recruit two individual national consultants to carryout social and resettlement analysis and environmental assessment. The consultant is expected to provide cooperation to these national consultants by providing necessary data for required analysis and assessment.

4 The contract will be signed and administered by the ADB in close coordination with the government. The consultant's team leader will be the sole point of contact with ADB, dealing with all contractual and technical matters of the assignment. The consultant will mobilize promptly after signing the contract agreement, and will compile, prepare and submit all required reports within the timelines mentioned in the terms of reference. The consultant will respond promptly to all queries raised by ADB and the government.

5 Subject to satisfactory performance, and at the discretion of ADB and the government, the consultant selected for the current assignment may be retained by ADB or the government for follow-on assignment under the project (detailed engineering design).

## Reports and Deliverable

6 The consulting services will be implemented over seven (7) calendar months from the commencement date.

7 The following reports, in the English language, will be submitted by the consultant to the Government (4 copies) and ADB (2 copies). The final report will also be submitted on CD-ROM.

Report	Description/Technical Accomplishments	Submission Deadline (no. months after the commencement date)
Inception Report	Changes, if any, in the approach, methodology, or work plan, as well as cost implications for the consultants' services (contained in the consultants' proposal) that are required to fulfill the terms of reference.	2.00
Progress Report No.1	Task 1: Air Transport Sector Assessment Task 2: Traffic Assessment and Airport Planning Task 3: Institutional Assessment Task 4: Project Implementation Capacity Assessment	
Progress Report No.2	Task 5: Priority Improvements, Preliminary Engineering and Cost Estimate	3.50
Progress Report No.3	Task 6: Economic Assessment Task 7: Financial Assessment Task 8: Financial Sustainability Assessment Task 9: Maintenance Assessment	5.00
Draft Final Report	Draft Final Report – All Tasks	5.50
Final Report	All Tasks – Revised As Per Comments from the Government	7.00

### **Data, Local Services, Personnel, and Facilities to be provided by the Government**

- 8 The Government will provide the Consultant with the following:
- (i) Access to data, records, and other information required to perform the assigned tasks; and
  - (ii) Counterpart staff and engineers to coordinate with the Consultant's team.