

Ex-Ante Evaluation

1. Name of the Project

Country: Democratic Socialist Republic of Sri Lanka
Project: Bandaranaike International Airport Development Phase 2 (II)
Loan Agreement: March 24, 2016
Loan Amount: 45,428 million yen
Borrower: Airport and Aviation Services (Sri Lanka) Ltd.

2. Background and Necessity of the Project

(1) Current State and Issues of the Aviation Sector in Sri Lanka

The Bandaranaike International Airport serves as a gateway to the country's political and economic center in Greater Colombo, handling 7.31 million passengers annually as of 2013—far more than the design limit of six million passengers. Particularly during peak periods, the airport suffers from deteriorating passenger services, such as long queues to reach check-in counters and insufficient capacity at turntables receiving checked baggage. To cope with the increasing number of passengers, the Sri Lankan government decided to expand the capacity of its airport to accommodate 12 million passengers each year. JICA approved the Bandaranaike International Airport Development Phase 2 (herein after, "Phase 2 (I)") with a loan amount of 28.969 billion yen.

After the end of the internal conflict in 2009, the country has demonstrated rapid economic growth (over 6% annually) and booming tourism demand (total tourist arrival increased by 26% in 2013). Given these changes, the number of foreign tourists and businesspeople visiting the country is increasing at a pace far beyond the demand forecasted in 2011, immediately after the end of the war. In 2013, the Sri Lankan government reviewed the original demand forecast, and drastically increased its 2020 passenger prediction from 11.0 million to 14.7 million. The government accordingly decided to expand the airport to handle 15.0 million passengers a year.

(2) Development Policies for the Aviation Sector in Sri Lanka and the Priority of the Project

The government of Sri Lanka has aspiration to make Sri Lanka an aviation hub in the South Asia by constructing airport terminals that employ the latest technologies. Sri Lanka's Tourism Development Strategy (2011-2016) aims to achieve four million annual tourists visits by 2020 (1.275 million in 2013) by expanding international air routes and inviting in new airline companies. The project is thus in line with the Sri Lankan government's development policies.

(3) Japan and JICA's Policy and Operations in the Aviation Sector

The JICA Country Analysis Paper for Sri Lanka provides an analysis that defines efficiency improvements in the flow of people and cargo by improving connectivity in both domestic and international locations as key challenges under "improvement of transportation network programs". Japan also defines "facilitation of economic growth" by improving basic transportation infrastructure necessary to improve international connectivity as a key factor in the Country Assistance Policy to Sri Lanka; JICA's support in implementing the Project is thus highly relevant to these analyses and policies. So far, JICA has provided support to improve and expand the airport, through projects such as the Bandaranaike International Airport Development Project (L/A signed in 1999 with loan amount of 12.384 billion yen) and the Phase 2 (I).

(4) Other Donors' Activities

The Bandaranaike International Airport, which started international operations in 1959, enlarged and raised its runway with help of Canada in 1965. In 1981, a Master Plan was formulated with help of Netherlands. According to the M/P, Japan (yen loan), the UK (grant aid), and France (loan) provided aid from 1984 to 1988 to construct and expand the new runway and passenger terminal buildings.

The second international airport, the Mattala Rajapaksa International Airport, was opened in 2013 in Southern Province, with financial aid provided by the Export-Import Bank of the People's Republic of China.

(5) Necessity of the Project

As an island country, Sri Lanka desperately needs a better international airport to ensure smooth

passenger traffic and international trade. The Project is in line with the development plan of the Government of Sri Lanka as well as the cooperation policies of the Government of Japan and JICA. As a part of the Special Terms for Economic Partnership (STEP) of Japanese ODA Loans, the project incorporates advanced Japanese technologies and knowledge, such as the Eco Airport Concept. The Project is in line with the "infrastructure export strategy" of the Japanese government, and JICA's support for the Project is thus highly necessary.

3. Project Description

(1) Project Objectives

The objective of the Project is to increase passenger handling capacity of the Bandaranaike International Airport and to improve passenger convenience with the expansion of the airport infrastructure and facilities, thereby contributing to the enhancement of the connectivity with overseas countries and promoting economic growth including tourism industry.

(2) Project Site/Target Area: Katunayake, Gampaha District, Western Province.

(3) Project Components:

- 1) Airport facility improvement: Passenger terminal building (including No. 2 and No. 3 piers), aircraft parking aprons, and other airport facilities. (International Competitive Bidding)
- 2) Improvement of facilities/equipment associated with the airport: Elevated access roads, multistory parking garage, and incidental facilities (power supply facilities, water supply facilities, sewage treatment facilities, incinerators, etc.) (International Competitive Bidding)
- 3) Consultation services (e.g. detailed designs, bidding support, supervision of construction work) (Short-list)

(4) Estimated Project Cost

89,959 million yen (including yen loan: 74,397 million yen, current loan: 45,428 million yen)

(5) Project Implementation Schedule

Scheduled from March 2012 to November 2020 (total of 105 months); project completion is defined as the service commencement of the facilities (November 2019).

(6) Project Implementation Structure

- 1) Borrower: Airport and Aviation Services (Sri Lanka) Ltd.
- 2) Guarantor: The Government of the Democratic Socialist Republic of Sri Lanka
- 3) Executing Agency: same as 1)
- 4) Operation and Maintenance: Airport and Aviation Services (Sri Lanka) Ltd. will continue take charge of operation and maintenance after services begin. Airport and Aviation Services (Sri Lanka) Ltd. properly operates the Bandaranaike International Airport constructed with help of yen loans, demonstrating sufficient organizational skill and experience.

(7) Environmental and Social Considerations/Poverty Reduction/Social Development

1) Environmental and Social Considerations

I. Category: B

II. Reason for Categorization: The Project is classified category B in accordance with JICA Guidelines for Environmental and Social Considerations (April 2010). There is no significant negative environmental and social impact caused by the Project during either the construction or operation phases.

III. Environmental Permit: Preparation of an Environmental Impact Assessment (EIA) report and an Initial Environmental Examination (IEE) for this Project are not required under Sri Lankan law. However, the execution agency is urged to prepare and submit reports including an Environment Management Plan to the Central Environment Agency (CEA). The Environmental Clearance by the CEA was approved in March 2015.

IV. Anti-Pollution Measures: Sewage water generated in the airport facilities are purified in a sewage treatment facility constructed on the airport premises. Exhaust gas from incinerators installed in the airport will be treated using an appropriate waste treatment system. In this way, the airport will satisfy the environmental requirements of the country.

V. Natural Environment: The project site is not located in or around sensitive areas such as national parks, and adverse impact on the natural environment is assumed to be minimal.

VI. Social Environment: The Project requires no land acquisition or resettlement, since it will take place on land owned by the project executing agency.

VII. Other/Monitoring: During the construction period, the executing agency will monitor noise, airborne dust, and exhaust gas from incinerators after handover, sewage water quality, and other factors.

- 2) Promotion of Poverty Reduction: None in particular.
- 3) Promotion of Social Development (e.g. Gender Perspective, Measures to Prevent Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for People with Disabilities, etc.): Consideration for People with Disabilities: The Project will remove impediments and incorporate facilities friendly to people with disabilities. Measures to Prevent Infectious Diseases Including AIDS: The Project will involve HIV/AIDS prevention activities for construction workers, including educational programs (e.g. seminars).
- (8) Collaboration with Other Schemes and Donors: None in particular.
- (9) Other Important Issues: The Project will utilize a STEP scheme, including a design that incorporates Japan's Eco Airport Concept: (1) the airport takes global environmental conservation into account, (2) the airport coexists harmoniously with the local environment, and (3) the airport is sustainable and contributes to the creation of a low-carbon society, recycling-oriented society, and nature-friendly society. Under this concept, energy-saving Japanese technologies such as photovoltaic power generation, LED lighting, toilets that use recycled water, and highly energy-efficient glass will be applied. Climate change will be mitigated by introducing photovoltaic power generation (expected CO2 emission reduction: 291 tons/year).

4. Target Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicators)

Indicators	Baseline (2013 actual)	Target (2 years after completion, 2021)
Number of annual international aircraft movement (times)	47,027	91,438
Number of annual international passengers (thousand)	7,312	14,726
Sri Lankan nationals (thousand)	2,059	3,534
Foreign nationals (thousand)	2,549	6,972
Transit passengers (thousand)	2,741	4,219

- 2) Internal Rate of Return (IRR): Based on the conditions below, the Economic Internal Rate of Return (EIRR) of this project was calculated as 23.9%, while Financial Internal Rate of Return (FIRR) was 7.5%.

[EIRR]

Cost: Project cost (tax excluded), operation and maintenance cost (including labor fees and utility cost)

Benefit: Revenue from tourists, and others

Project Life: 25 years

[FIRR]

Cost: Project cost, operation and maintenance cost (including labor fees and utility cost)

Benefit: Airport revenue (landing fees, exit taxes, tenant fees)

Project Life: 25 years

- (2) Qualitative Effects: Enhanced convenience for airport users by ensuring smooth traffic and handling on the site.

5. External Factors and Risk Control

Security in the recipient country can be maintained without negative impact on tourist demands.

6. Evaluation Results and Lessons Learned from Past Projects

(1) Evaluations Results of Similar Past Projects

The ex-post evaluation of Sri Lanka's Bandaranaike International Airport Development Project indicated that there was a discrepancy in opinions related to deficient construction and the malfunction of instruments between the orderer and the vendor, causing a delay in the issuance of a

certificate of defect warranty. The followings were identified as the causes for such situation: the lack of a system for preventing conflict, and the lack of mechanism for ensuring smooth resolution when conflict does occur.

(2) Lessons for the Project

Based on the lessons learned from the similar project, the Project established a permanent dispute adjudication board for each agreement to prevent disputes arising between orderers and vendors, so that even if a dispute does occur, the board can help resolve it in its early stages.

7. Plans for Future Evaluation

(1) Indicators to Be Used:

- 1) Number of annual international aircraft movement (times)
- 2) Number of international passengers per year (thousand)
 - Including Sri Lankan nationals (thousand)
 - Including foreign nationals (thousand)
 - Including transit passengers (thousand)
- 3) Economic Internal Rate of Return (EIRR) (%)
- 4) Financial Internal Rate of Return (FIRR) (%)

(2) Timing of Next Evaluation:

Two years after completion