

Ex-Ante Evaluation

Southeast Asia Division 5

Southeast Asia and Pacific Department, JICA

1. Name of the Project

Country: Republic of the Philippines

Project: New Bohol Airport Construction and Sustainable Environment Protection Project (II)

Loan Agreement: October 8, 2018

2. Background and Necessity of the Project

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

The Philippines (hereinafter called “The Philippines”), as an island nation composed of more than 7,000 islands, depends on air transportation for mobility and currently has 83 airports all over the country. The airport in Bohol Province has also undergone a rapid increase in air demand over the past decade, rising from 240,176 passengers in 2006 to 871,383 in 2016. Expanding the existing airport, however, would be difficult due to environmental, social and other issues, and a new airport must therefore be constructed that is compliant with international safety standards and that has adequate handling capacity.

The Philippine government announced the Philippine Development Plan (2017-2022) setting forth addressing a crowding issue in air transportation and constructing/expanding local airports for meeting the increasing aviation demand. The President Duterte, who took office June, 2016, initiated the “Build, Build, Build” Program, which seeks to accelerate infrastructure spending from 2.6% of the nation’s GDP (average spending for the last 50 years) to 5.3% of its GDP during 2017 and to invest 8.4 trillion yen in total in infrastructure development for the six years (2017-2022). The “Build, Build, Build” Program gives top priority to this project. This project aims to construct a new airport in Panglao Island, Bohol Province to accept not only domestic flights but also international flights, so that it is consistent with the Philippine development policies.

(2) Japan and JICA’s Policy and operations in the Aviation Sector

Under the Country Assistance Policy for the Republic of the Philippines (April 2018), “Strengthening a Foundation for Sustainable Economic Growth” is defined as a key target and it mentioned about the supports that should be provided to improve transport and traffic networks. The JICA Country Analysis Paper for the Philippines (November 2014) analyzes improvement of transport and traffic networks and infrastructure development by PPP as key issues. Therefore, the Project is in line with the assistance policies and analysis of the Government of Japan and JICA. Japan has provided assistance for the airport development such as “MACTAN (CEBU) international airport development project” (July 1991), “New Iloilo Airport Development Project” (August 2000) and for improvement of airport operation safety such as “New Communications, Navigation and Surveillance/ Air Traffic Management (CNS/ATM) Systems Development Project” (March 2002).

(3) Other Donors’ Activity

The Economic Development Cooperation Fund of the Export-Import Bank of

Korea supported the construction of an airport in Puerto Princesa, Palawan Province, through “Puerto Princesa Airport Development Project” (2014-2017), and the improvement of aviation security facilities and power supply equipment of Laguindingan International Airport in Cagayan de Oro, Misamis Oriental Province of the northern part of Mindanao Island, through “Laguindingan Airport Air-Navigation System and Support Facilities Supply Project” (2008-2013).

3. Project Components

(1) Project Objectives

The objective of the project is to improve operational safety and efficiency of air transportation by constructing a new airport in Panglao Island, Province of Bohol, thereby contributing to sustainable development of the Province.

(2) Project Site/Target Area

Panglao Island, Bohol Province

(3) Project Components

1) Civil Engineering Works

Runway 2,500m×45m, Landing strip, Taxiways, Apron, Passenger Terminal Buildings, Boarding Bridge, Control Tower, Utility facility, and Navigation System, etc. Note that the additional scope of this period includes extension of the runway from 2,000m to 2,500m, expansion of the passenger terminal building from 8,271m² to 13,337m², and construction of the boarding bridge, etc.)

2) Consulting Services

Tendering support, Construction supervision, Environment management and monitoring, Resettlement support, etc.

(4) Estimated Project Cost

19,377 million yen (of which, total loan amount: 15,158 million yen, including loan amount of this period: 4,376 million yen)

(5) Schedule

March 2013 – February 2020 (84 months). Limited commercial operation will start in October 2018, and the project will be completed when all the facilities come into service in February 2019.

(6) Project Implementation Structure

1) Borrower: The Government of the Republic of the Philippines

2) Guarantor: None

3) Executing Agency: Department of Transportation (DOTr)

4) Operating and Maintaining Organization: The Civil Aviation Authority of the Philippines (CAAP) will operate and maintain the airport. Note that operation and maintenance may be entrusted to a private company in the future.

- (7) Collaboration and Division of Roles with Other Projects and Donors
- 1) Japan's assistance activities: None
 - 2) Other development partners' assistance activities: None
- (8) Environmental and Social Consideration/Poverty Reduction/Social Development
- 1) Environmental and Social Consideration
 - i) Category: A
 - ii) Reason for Categorization: The Project falls into the categories of the "Airport" sector and "Sensitive Characteristics", as specified in the "Japan International Cooperation Agency (JICA) Guidelines for Environmental and Social Considerations" (April 2010).
 - iii) Environmental Permit: Environmental Compliance Certificate (ECC) for this project has been issued by the Department of Environment and Natural Resources (DENR) on June 4, 2003. After that, modified ECC for additional scope in this period has been issued on July 25, 2017.
 - iv) Anti-Pollution Measures: Regarding noise and dust, the contractor conducts construction work only in the daytime and regularly sprinkle water. And the contractor will prevent water pollution by management of waste oil. Also, after commencement of operation, set noise buffer zone as noise control, make departure and arrival schedule limited to the daytime, implement waste management plan as waste management. Through construction and operation phase, soil pollution will be prevented. Regarding discharge from the airport facility, it will be treated by the facility inside the airport and discharged into soaking yard and then into the underground.
 - v) Natural Environment: The Project is not conducted in or near a sensitive area such as national parks, and is expected to cause little adverse environmental impacts. Regarding terrestrial ecosystem, Provincial government of Bohol will implement biodiversity protection plan, which mention 620,000 tree plantings around the Province, in cooperation with Bohol Island State University and local people. Regarding marine ecosystem, monitoring will be conducted mainly by Local Government Unit in order to minimize the negative impact to ecosystem.
 - vi) Social Environment: The project causes 439 lots (about 2,196,707m²) of land acquisition and resettlement of 77 households. Land acquisition and resettlement has been started in accordance with the country's laws and regulations and Resettlement Action Plan (RAP), and all resettlements are already complete. Currently, one lot (867m²) is not complete, so DOTr is taking action with the related organizations.
 - vii) Others and Monitoring: Based on Environment Management Plan and Monitoring plan, Multi-partite Monitoring Team (MMT) will conduct monitoring on air quality, noise and waste. MMT consists of National government agency such as DENR and DOTC, Local Government Unit, related agencies and NGO. Also, Provincial government of

Bohol will conduct monitoring tree planting, land acquisition, resettlement and livelihood activity.

2) Cross-cutting Issues:

- i) Measures against Climate Change: None
- ii) Action against and Consideration of Poverty: None
- iii) Measures against Infectious Disease, such as AIDS and HIV

During the construction, it is expected that a significant number of workers (migrant workers) will come from areas outside of the Project sites. To cope with these issues, JICA will request the Executing Agency to incorporate an HIV/AIDS clause into bidding documents so that construction contractors can provide measures to prevent the development of HIV/AIDS among construction workers.

- iv) Participatory Development and e) Consideration for the Person with Disability, etc.

The Philippines ratifies the Convention on the Rights of Persons with Disabilities, so JICA plans to introduce universal (barrier-free) design based on Article 9. For example, the passenger terminal building will have escalators, multi-purpose toilets, check-in counters for wheelchairs, boarding bridges, and voice broadcasting. Note that it is necessary to conform to the local barrier-free regulations and guidelines, including the Accessibility Law (BP344).

3) Gender Classification: Gender Informed (Significant)

<Activities and reasons for classification> The passenger terminal building shall be designed in consideration of female users; for example, the building has security cameras, and toilets separated by sex.

(9) Other Important Issues

None

4. Targeted Outcomes

(1) Quantitative Effects

Performance Indicators (Operation and Effect Indicators)

Indicator	Baseline (2010 Actual)	Target (2021) 【2 years after project completion】
Number of passengers/year (passenger for domestic flight)	572,476	1,527,600
Number of passengers/year (passenger for international flight)	0	238,200
Number of aircraft movements/year (including international flight)	4,664	13,734

(2) Qualitative Effects

Improvement of operational safety, efficiency of air transportation and passengers' satisfaction, and promotion of the economic growth of Bohol Province.

(3) Internal Rate of Return

Assuming the conditions listed below, the Project's economic internal rate of return (EIRR) is 27.7%, and financial internal rate of return (FIRR) is 3.3%
[EIRR]

Cost: Project cost (excluding tax), O&M cost

Benefits: Shortening of travel time, Tourism revenue from foreigners,
Reduction of transportation cost, etc.

Project life: 30 years (after commencement of airport operation)

[FIRR]

Cost: Project cost, O&M cost

Profits: Airport fee, Passenger terminal fee

Project life: 30 years (after commencement of airport operation)

5. Prerequisites / External Factors

(1) Prerequisites: None

(2) External Factors: None

6. Lessons Learned from Past Projects

The ex-post evaluation of Selected Airports (Trunkline) Development Project I and II points out that although CAAP conducts sound activities necessary to airport operation and maintenance, it cannot address problems timely. For example, when the local airport encounters a sudden facility or equipment failure, the operator cannot use its own income to take quick action, because the headquarter of CAAP collects all the income from the local airport and the operator has to follow given procedures to require the headquarters to give money other than the predefined budget. Moreover, the communication between the headquarters and the local airport is not smooth in many cases.

In this project, CAAP will be in charge of operation and maintenance, and the new Bohol Airport will be much larger in scale than the existing one, so the

authority needs to establish an appropriate organizational structure for a good operation and maintenance. Accordingly, JICA will oblige CAAP to submit a prior report on an organization structure plan that will include how to secure adequate personnel and budget and to establish an ordering system between the headquarters and the new Bohol Airport in emergency events, and give advice as necessary to help the authority establish an appropriate organizational structure.

7. Evaluation Results

This project aims to improve operational safety and efficiency of air transportation by constructing a new airport in Panglao Island, Province of Bohol, thereby contributing to sustainable development of the Province. Therefore, the project is aligned with Philippines' development policy and Japan and JICA's country assistance policies. Furthermore, the project is expected to contribute to Sustainable Development Goals (SDGs) Goal 9 (Build resilient infrastructure), making JICA's support of the Project necessary and relevant.

8. Plan for Future Evaluation

- (1) Indicators for Future Evaluation:
Per 4. (1) to (3)
- (2) Timing
Ex-post evaluation (Two years after project completion)

END