

Ex-Ante Evaluation

1. Name of the project

Country: Socialist Republic of Viet Nam

Project: Terminal 2 Construction Project in Noi Bai International Airport (I)

Loan Agreement: March 18, 2010

Loan Amount: 12,607 million yen

Borrower: The Government of the Socialist Republic of Viet Nam

2. Background and Necessity of the Project

(1) Current State and Issues of the Air Transportation Sector in Vietnam

Vietnam has been on a path of economic growth fuelled by gains in exports and foreign investment as the country embraced a market economy with the adoption of the Doi Moi (renovation) policy in 1986. Although it still accounts for a small percentage of the domestic transport system, air transport has steadily increased, reaching 10.2 million passengers in 2008 (average 18% annual increase from 1999 to 2008) and 130,000 tons of cargo (17% increase).

Vietnam has 21 civilian airports, but Noi Bai International Airport, located to the north of the center of the capitol Hanoi as the gateway for Vietnam's northern region, the Da Nang International Airport in central Vietnam, and Tan Son Nhat International Airport in Ho Chi Minh City account for 89% of Vietnam's air passengers and about 99% of its air cargo (in 2007). Moreover, the air passenger transportation volume at these three airports has risen sharply (average 20% annual increase from 2004 to 2008), making it essential to build facilities to handle this passenger load. Airport facilities must be expanded at the appropriate time to meet the future rise in demand and ensure convenience and safety.

(2) Development Policies for the Air Transportation Sector in Vietnam and the Priority of the Project

The Vietnamese government's Eighth Five-Year Social and Economic Development Strategy (2006-2010) aims to lose its status as a low-income country by 2010 by expanding the knowledge-based economy that will form the foundation for high growth, improved living conditions, industrialization and modernization, and achieve political, social and legal stability to bolster its position in international society, all centered on the economy, society and the environment. The plan states the need for investment in modern aviation transport as one of the strategies to upgrade the transportation sector. In addition, the Master Plan for Air Transportation (2020-2030) stresses the need to upgrade Noi Bai International Airport.

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

Japan's Country Assistance Program for Vietnam (July 2009) states that "the promotion of economic growth and strengthening international competitiveness" is one of the four main pillars of Japan's aid policy. Urban development and the establishment of a transport/traffic and communications network, which includes air transportation, are given priority in this. Moreover, JICA has responded to this plan by working for urban development and the establishment of transport/traffic and communications network as part of "the promotion of economic growth and strengthening international competitiveness." Aid for traffic/transportation and urban development is positioned as part of the Program to Build Trunk Road Network, and this project is implemented as part of this.

(Main achievements)

ODA Loan: "Tan Son Nhat International Airport Terminal Construction Project" (approved 2001)

Technical Cooperation: "Aviation Safety Seminar" (Vietnam participated in 1995, 1997 and 2001)

Technical Cooperation (Development Study): "Comprehensive Study on the Sustainable Development of Transport System (VITRANSS 2)" (2007-2009) (a sub-sector report on the aviation sector was also prepared as part of this study)

Technical Cooperation (Development Study): "Development of Advanced Aviation Security System for the

Eastern Mekong Region in Southeast Asia (Vietnam, Laos, Cambodia)" (2009-2010)

(4) Other Donors' Activities

Other aid organizations do not provide aid for Vietnam's aviation sector.

(5) Necessity of the Project

The project accords with Japan's and JICA's prioritized assistance areas, and the necessity and relevance of its implementation is high.

3. Project Description

(1) Project Objectives: This project is intended to respond appropriately to the sharp rise in air passenger demand and enhance convenience and safety by building a second passenger terminal for the use of international passengers at Noi Bai International Airport in Vietnam's capitol, Hanoi. This will contribute to the promotion of Vietnam's economic growth and its international competitiveness.

(2) Project Site/Target Area: Soc Son district, Hanoi City, Socialist Republic of Vietnam (22 km north of central Hanoi)

(3) Project Components: Complete construction of terminal building for international passengers and auxiliary facilities to meet demand for air passengers in 2020 (approximately 10 million a year)

1) Construction, equipment procurement, etc. (site for new terminal, international passenger terminal, engineering work [elevated bridge, roads, parking lot, etc.], airport facilities [baggage processing system, passenger boarding bridge, security systems, etc.], sewage system, aircraft refueling facility)

2) Consulting services (help in coordinating construction management and related work, environmental countermeasures, etc.)

(4) Estimated Project Cost (Loan Amount): 83,309 million yen (Loan Amount: 12,607 million yen)

(5) Schedule: March 2010 – January 2016 (total of 71 months); the project will be complete when the facilities begin operating (February 2014).

6) Project Implementation Structure

1) Borrower: The Government of the Socialist Republic of Vietnam

2) Executing Agency: Northern Airports Corporation

3) Operation and Maintenance System: Noibai Terminal Operation Company. The aircraft refueling facilities will be operated and managed by an aircraft refueling facility operation and maintenance company, which is to be established as a wholly-owned subsidiary of the executing agency or as a joint venture company in which the executing agency has an equity stake of 50% or more.

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

1) Environmental and Social Considerations

① Category: B

② Reason for Categorization: This project does not correspond to the large-scale aviation sector specified in the JICA Guidelines for Confirmation of Environmental and Social Considerations (established in April 2002). Moreover, it would not have a significant harmful effect on the environment, nor does it have any of the attributes specified in the Guidelines that would tend to have an impact or pertain to a region that would be easily affected, so it corresponds to Category B.

③ Environmental Permit: The Ministry of Natural Resources and Environment has already approved the environmental impact assessment (EIA) report for this project in June 2006. MONRE also approved the EIA report updated to reflect subsequent changes in demand forecasts and project plans in August 2009.

④ Anti-Pollution Measures: The environmental standards for air quality and noise during construction will be met by taking measures such as checking the quantity of pollutants emitted by construction equipment, watering and setting up sound insulating

walls.

- ⑤ Natural Environment: The target area is located in a suburb outside of the city, and is not an area such as a national park that would be easily affected area, nor is it in the vicinity of such an area. Accordingly, any harmful impact on the natural environmental would be very minimal.
 - ⑥ Social Environment: This project will involve the acquisition of approximately 101 ha of land and the relocation of 856 graves. No one lives on the planned construction site and the project will not result in any resident relocation. Land acquisition is currently proceeding in line with Vietnamese procedures, and Phase I, required to construct the terminal building, is expected to be complete by March 2010, while Phase 2, required to construct the aircraft refueling facilities, will be complete by December 2010.
 - ⑦ Other/Monitoring: The executing agency will monitor air quality, noise, vibration, water quality, and other aspects.
- 2) Promotion of Poverty Reduction: None in particular
- 3) Promotion of Social Development: None in particular
- ①HIV/AIDS countermeasures: The contractor shall be required in the bid documents to implement an HIV/AIDS prevention program as part of the worker's health management.
 - ②Consideration for Persons with Disabilities, etc.: There are plans to consider measures at the design stage that would support the elderly and disabled people, such as the adoption of barrier-free design and universal design, in accordance with domestic laws and international standards.
- (8) Collaboration with Other Donors: None in particular
- (9) Other Important Issues: None in particular

4. Targeted Outcomes

(1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (Actual Value in 2008)	Target (2016) (Expected value 2 years after project completion)
Annual number of international passengers (1,000 people)	3,040	7,700
Annual number of landings and takeoffs for international flights (times)	25,449	58,000

(1) Internal rate of return:

Based on the conditions indicated below, the Economic Internal Rate of Return (EIRR) for this project is 18.5% and the Financial Internal Rate of Return (FIRR) is 0.9%.

【EIRR】

Costs: Project cost (excluding taxes), Operating and Maintenance cost

Benefits: Contribution to tourism industry, Landing fee, Passenger Boarding Bridge (PBB) charge, Aircraft parking charge, Airport use fee, Tenant fee, etc.

Project life: 38 years

【FIRR】

Costs: Project cost, Operating and Maintenance cost

Benefits: Landing fee, PBB charge, Aircraft parking charge, Airport use fee, Tenant fee, Vehicle parking fee, etc.

Project life: 38 years

5. External Factors and Risk Control

None in particular

6. Lessons Learned from Past Projects

(1) Project scale and operation and maintenance system

Similar projects in the past, such as the Mombasa Airport Development Project in Kenya and the Urumqi Airport Expansion Project in China, have taught the importance of determining the timing of project implementation and project scale only after carefully analyzing the factors affecting demand forecasts (the reality of regional development plans, competition with neighboring airports, etc.), establishing an appropriate operation and maintenance system, and securing funding. The scale of this project and its operation and maintenance system were determined after careful reviews through F/S and the D/D currently being prepared, and there seem to be causes for concern, but if the plan does have to be changed, appropriate steps will be taken with the advice of a construction supervising consultant employed at the project implementation stage.

(2) Project implementation schedule

At the time of inauguration of Tan Son Nhat International Airport Terminal Construction Project, operating was began partially in the area which construction had been completed and experienced the formation periods first, then the full service followed. Because the executing agency also intends to begin services of this project at an early date by opening the terminal partially, the implementation schedule shall be coordinated adequately among the executing agency, tenants, contractors and construction supervising consultants.

7. Plan for Future Evaluations

(1) Indicators to be used

- 1) Annual number of international passengers (1,000 people)
- 2) Annual number of landings and takeoffs for international flights (times)
- 3) Economic Internal Rate of Return (EIRR) (%)
- 4) Financial Internal Rate of Return (FIRR) (%)

(2) Timing: Two years after project completion