

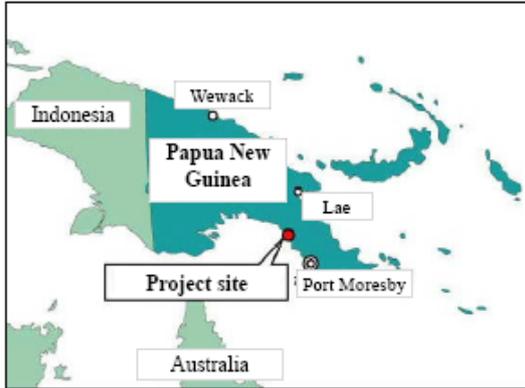
## Ex-Post Monitoring Report

### Port Moresby International Airport Redevelopment Project (I) and (II) in Papua New Guinea

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Field Survey : June 2008

#### 1. Outline of the Project



Project Site



Air traffic control tower of the airport

##### 1.1 Project Objective

The objectives were to improve and expand the terminal facilities of the Port Moresby International Airport (PMIA) and also improve its aviation safety facilities, thereby promoting both domestic and international flows of people and goods in order to vitalize the country's economy.

##### 1.2 Outline of the Project (Outline of Loan Agreement etc)

|   |   |
|---|---|
| Loan Amount / Loan Disbursed Amount                 | Phase I: 8,454 million yen / 8,312 million yen<br>Phase II: 4,309 million yen / 3,577 million yen |
| Signing of Loan Agreement / Final Disbursement Date | Phase I: November 1988 / July 1998<br>Phase II: February 1996 / April 2001                        |
| Ex-post Evaluation                                  | Fiscal 2002   |
| Executing Agency                                    | Civil Aviation Authority (CAA), Papua New Guinea  |
| Main Contract                                       | Fletcher Morobe Construction Pty. Ltd. (PNG), etc.  |
| Consultant Contract                                 | Pacific Consultants International (Japan)   |

##### 1.3 Background and Reasons for Conducting Ex-post Monitoring Study

This project was subjected to a monitoring study because of the following reasons.

(Effectiveness) The effect of the project did not appear as much as originally expected. Airport traffic (number of passengers, volume of cargo and mail) and number of arrivals and departures began to decline in 1998. Thus, the subsequent effect needed to be found out.

(Sustainability) Since the operation system was weak, it was necessary to examine its improvement. It was also necessary to obtain financial data and examine the sustainability of the management authority.

(Follow up Situation of Recommendations) In the evaluation, it was recommended to take the following financial measures urgently in relation with the Civil Aviation Authority (CAA): (1) introduction of corporate accounting, (2) monitoring of current financial conditions to ensure profitability in the future, and (3) measures to strengthen its financial structure. It was also proposed that JBIC needs to examine the change of yen loan borrower (whether it is changed or not by 2005) and follow up how the SAPS' recommendations are realized.

## 2. Monitoring Results

### 2.1 Effectiveness

Economic improvement of Papua New Guinea after 2002 led to an increase of flows of people and goods and the number of passengers of the Port Moresby International Airport is on the rise. The number of passengers of domestic flights is significantly increasing and the airport is used as the hub for domestic air transport.

#### 2.1.1 Traffic Volume and the Number of Departures and Arrivals

The number of passengers at the Port Moresby International Airport has increased since 2002, as shown in Table 1. The number of passengers of domestic and international flights was estimated to be 630,000 and 209,000, respectively, in 2001 when the evaluation was conducted. In 2007, the number of passengers of Air Nuigini's domestic and international flights was 843,000 and 167,000, respectively, up 48 percent and 33 percent, respectively, from 2003. This shows a steady rise. Although the evaluation in 2001 reported a decline trend of the number of passengers, cargoes and flights after 1998, the trend had been already reversed when the monitoring study was conducted.

Table 1: Number of Passengers, Cargoes and Flights

|                          | Plan       | Actual     |           |           |           |           |           |
|--------------------------|------------|------------|-----------|-----------|-----------|-----------|-----------|
|                          | 2001*      | 2001*      | 2003      | 2004      | 2005      | 2006      | 2007      |
| Passenger (unit: person) |            |            |           |           |           |           |           |
| Domestic                 | 800,000    | 630,000    | 570,660   | 617,795   | 674,050   | 737,129   | 843,323   |
| Increase rate            |            |            | 100       | 108       | 118       | 129       | 148       |
| International            | 226,000    | 209,000    | 126,212   | 139,269   | 142,567   | 153,226   | 167,408   |
| Increase rate            |            |            | 100       | 110       | 113       | 121       | 133       |
| Cargo (unit: kg)         |            |            |           |           |           |           |           |
| Domestic                 | 17,700,000 | 11,000,000 | 4,303,977 | 4,499,831 | 5,348,879 | 5,986,569 | 6,405,314 |
| International            |            |            | 5,344,717 | 6,797,005 | 6,372,014 | 6,224,521 | 5,543,055 |
| Flights                  |            |            |           |           |           |           |           |
| Domestic                 | 46,000     | 37,000     | 14,090    | 16,401    | 17,521    | 18,240    | 18,832    |
| International            |            |            | 2,355     | 2,264     | 2,267     | 2,368     | 2,520     |

Source: The figures of 2001 (plan and actual) are from the ex-post evaluation report. (\*The 2001 plan

is the figure of 2000.) Figures in 2003 and thereafter are those of Air Nuigini only.

Other than Air Nuigini, Airlines PNG operates domestic flights and international flights to and from Cairns and Brisbane, Australia. However, Air Nuigini accounts for 90 percent of domestic flights and 80 percent of international flight passengers in the country.

The PMIA projected 220,000 passengers of international flights and 770,000 passengers of domestic flights in 2000 and the current number of passengers has reached the projection. The maximum handling capacity at the peak time is 400 for international flights and 440 for domestic flight. Three international flights arrive on Monday, Friday and Sunday afternoons and the arrival area (passport control, baggage claim and customs) are quite crowded in those hours.

The major means of entry and departure into and from PNG are by air and sea and more than 90 percent use air. The combined number of entry and departure in 2003 was 182,000 in 2003, which increased to 242,000 in 2007. This is due to an increase in the number of passengers of international flights, which is a result of healthy economy of the country in recent years. Entry and departure of business people and their families are on the rise.

Table 2: Entry into and Departure from PNG (unit: person)

|               | 2003    | 2004    | 2005    | 2006    | 2007    |
|---------------|---------|---------|---------|---------|---------|
| Entry         | 95,722  | 98,250  | 101,711 | 107,654 | 126,168 |
| Departure     | 86,058  | 82,917  | 95,669  | 103,390 | 115,986 |
| Total         | 181,780 | 181,167 | 197,380 | 211,044 | 242,154 |
| Increase rate |         | Δ0.3%   | 8.9%    | 6.9%    | 14.7%   |
| PMIA          | 167,238 | 166,674 | 181,590 | 194,160 | 222,782 |

Source: National Statistics Office; estimate based on an estimate that 92 percent of passengers use the PMIA (estimated based on the actual figures in 2006).

## 2.1.2 Numbers of Accidents, Fatalities and Near-Misses

There has been no fatal accident or near-miss at the PMIA after the ex-post evaluation. (No detailed data is accumulated.)

## 2.2 Impact

### 2.2.1 Impact on Economic Development

Although economy of PNG declined from 1998 to 2002, it has been growing since 2003. The economic growth rate in 2005 was 2.8 percent and 3.5 percent is forecast for 2006 to 2008. The average GDP growth rate for 10 years from 1994 to 2004 was 0.5 percent, which was pulled by agriculture and mining that each grew 2 percent annually during the decade. In mining, petroleum and natural gas drilling is in progress and business people from overseas visit PNG for mining development, production management and product distribution. The recent growth in air traffic is backed by these business people.

Table 3 shows the number of tourist. It almost doubled from 15,000 in 2003 to 27,000. It is another reason for the increase in air traffic. Major tourism resources are diving and

trekking. Although the number of tourists is on the rise, the average spending per tourist is about 2,200 dollars, which tells that PNG is a more expensive tourist destination than other South Pacific countries such as Fiji.

Table3: Number of Tourists (unit: person)

|          | 2003   | 2004   | 2005   | 2006   | 2007   |
|----------|--------|--------|--------|--------|--------|
| Tourists | 15,112 | 17,280 | 17,584 | 20,584 | 27,298 |

### 2.2.2 Impact on Environment and Local Communities

No negative impact on environment and local communities, such as noise and air pollution, has been reported. Wastewater from the airport is treated at the adjacent sewerage plant before discharged in the nearby river.

### 2.2.3 Questionnaire and Interview Survey with Passengers and Airport Workers and other Aviation-related Personnel

(Interview with airliners)

Interview with airport workers and other aviation-related personnel was conducted as part of the ex-post evaluation. Interviewees pointed out some problems, which include unstable power source for aviation systems. When we checked the power source in the monitoring study, power was distributed from three systems and thus there is a backup system. However, still, power outage occurs and it takes seven seconds until the backup system starts after the power goes out. This sometimes interrupts airport and runway lighting and supply of weather information. The radio system is not working partially, which sometimes interrupts communication with the control tower. PNG Air Service in charge of air-traffic control said that it has a plan for rehabilitation and maintenance of existing control facilities including the radio system and retraining of air-traffic control personnel.

(Interview with Passengers)

As part of monitoring, we conducted an interview survey with passengers who were waiting for departure of domestic or international flights at the lounge (173 interviewees). Although almost all interviewees gave good answers about the airport facility in general, some people voiced the following complaints: (1) The process of visa issuance, passport control and baggage claim is too time consuming when arriving flights concentrate; (2) Flight information is hard to see; (3) Indoor announcement is hard to hear; and (4) There are not enough stores in the airport building. Although the PMIA recognize such problems and intends to improve the situation, maintenance and management of current facility is the utmost of what they can do with the budget and it is not capable of make further improvement that requires additional investment.

## 2.3 Sustainability

Although there is room for improvement of maintenance and management of airport facility, technical improvement by providing them with training, and improvement of safety measures, it can be well evaluated that the airport is operated with no accident with a limited budget. Organizational reform is underway for ensuring financial sustainability and clear distinction between aviation business and administration.

### 2.3.1 Technical Capacity

Operation and maintenance of air side facilities (runway, apron, boarding bridge, and lighting control) is well conducted in general at the PMIA. However, due to a lack of budget, almost no improvement has been made as they cannot replace existing technologies and know-how. There is no fixed concrete training program or manual. Systematic knowledge is acquired in irregular overseas training in such countries as Australia, New Zealand and Singapore.

PNG Air Service (air-traffic control operator) continues to use the technology it acquired five years ago with no upgrading. It has no fixed concrete training program or manual. It recognizes the need for retraining and reinforcement training and is now planning such programs. PNG Air Service is an independent corporation in charge of air-traffic control and receives technical support from AusAID.

### 2.3.2 Structural Organization

CAA was reconstructing its organization when the monitoring was conducted. The air-traffic control section separated from CAA and PNG Air Service (PNG ASL) was established. There is a plan to include the aviation regulatory authority as an organization within the ministry of aviation and transport and to separate the airport operation and management section including PMIA as a private company. Currently, CAA has a total of 610 employees (no distinction of full-time and part-time staff), which is less than when the evaluation was conducted. The PMIA has 92 full-time and 5 temporary workers.

The PMIA is mainly in charge of the management of the air-side facility and the airline companies are responsible for the land side (boarding, baggage sorting and loading). Checking of carry-on luggage and security management of departure gates are outsourced.

### 2.3.3 Financial Status

CAA is not likely to financially viable. Although PNG ASL and PMIA can be financially sustained separately as a single entity, it is not possible to do so as CAA as a whole. The aviation administration has no revenues and local airports are constantly in red. When they are included in CAA as a whole, there is more spending than income constantly. Future structural reform is expected to change the financial structure and the new company is expected to be financially viable. The revenue was 84.7 million kinas and the spending was 82.3 million kinas, with a surplus of 2.4 million kinas, in 2007. However, 46.3 million kinas of the revenue were governmental subsidies. When the subsidies are subtracted, it is a deficit of 43.9 million kinas.

### 2.3.4 Operation and Maintenance (subsequent state of output and maintenance and management)

#### (1) Airport Operation

Airport facilities are maintained and managed adequately for the airport operation. The PMIA and airlines have meeting frequently to share problems and improvements of the facility and operation. Although information is managed qualitatively, information on flights, passengers and operation costs is not understood in its entirety, which makes it impossible to make a specific plan to improve the services. On the other hand, Air Niugini praised the airport operation, saying that it is operated well with a limited budget.

#### (2) Air Side Management

Airlines are in charge of boarding of passengers and loading of checked luggage. There is no serious management problem in international flights because the traffic volume is small. On the other hand, domestic flights are crowded and efforts need to be exerted for efficient management, which the airport depends on the airlines. The airport is also struggling with bird damage.

#### (3) Passenger Service Management

No improvement after the evaluation has been recognized. No sufficient measure is taken to handle the crowd when international flight arrivals concentrate. Immigration control and visa issuance systems are inefficient. (For example, fees for the visa issuance are required to be paid in kina, passengers have to go to the bank counter for money exchange and go back to the visa issuance counter.)

#### (4) Safety Management

One of the serious problems is the theft of airport equipment and machinery regardless of the location, whether it is air side, land side or air-traffic control. The situation has improved to a certain level as a result of such efforts as placing reinforced fence around the airport to prevent entry and assigning guards regularly at the guard station outside the airport to toughen access control to the airport facility. Security check of checked luggage and carry-on luggage is often pointed out to be insufficient.

## 3. Conclusion, Lessons Learned and Recommendations

### 3.1 Conclusion

Effects of the project were significant in comparison with the time when the evaluation was conducted. The airport is playing its role as the gateway to the country and as the hub airport of the country. However, problems that were pointed out at the evaluation were yet to be overcome and thus efforts need to be exerted for safer, more efficient and financially healthy operation. Since the airport facility has begun to be outdated, it needs to be improved and its

function needs to be recovered.

### 3.2 Recommendations and Further Follow up Items (to be summarized for each executing body)

The following financial recommendations were made in the evaluation: (1) introduction of corporate accounting by accounting experts (in particular, determination of debts and credits, including accrued income and accrued expenses), (2) understanding of current financial conditions for ensuring profitability in the future (particularly, future expenditures and their timing) and (3) measures to increase financial strength (particularly, stepping up its efforts to collect airport facility use fees). These measures are all implemented. The balance sheet should be compiled per section for future organizational reform. The principal and interest of the JBIC yen loan is paid by the Papua New Guinean government and no change has been made in the borrower. The SAPS recommended (1) CAA's organizational reform and (2) PMIA's organizational reform and formulation business plan, establishment of independent financial section and securing profitability by itself, (3) human resources development, (4) improvement of legal system, and (5) reform of maintenance and management structure. Although the formulation of an action plan and monitoring was pointed out, reform based on the SAPS recommendation is yet to be implemented. Experts from AusAid were dispatched to PNG ASL, newly established in line with the structural reform, in order to improve personnel capabilities and strengthen its financial structure. Although it is conducted in a different form from the SAPS recommendation, their objectives are the same: ensuring profitability independently, human resources development and improvement of legal systems.

The issues below are to be followed up after the monitoring: (1) organizational restructuring, (2) personnel training and improvement of safety management, and (3) understanding of renewal of equipment and facilities.

### 3.3 Lessons Learned (by executing body)

None.