

Papua New Guinea

Port Moresby International Airport Redevelopment Project (I) and (II)

Report Date: June 2003
Field Survey: October 2002

1. Project Profile and Japan's ODA Loan



Site map: Port Moresby International Airport



Baggage claim area in the domestic passenger terminal of the airport

1.1 Background

At the end of the 1980s, road and railway networks were underdeveloped throughout Papua New Guinea, and only a limited range of truck and bus services existed as inter-regional land transport systems. Since the regions are isolated from one another, sea ports and airports play an important role in the island's transport systems.

The Papua New Guinean government established a Planning and Budget Strategy for 1988-1992 for the purpose of achieving economic growth, fiscal independence, creation of employment and regional development. Promotion of civil aviation and the tourism industry was positioned as essential to attaining these goals, and the Department of Civil Aviation, Culture and Tourism (DCA&CT) formulated a five-year plan aimed at improving the Port Moresby International Airport (PMIA) and other airport facilities nationwide.

Papua New Guinea had a total of 480 airport facilities, including airports and temporal runways, and 20 of them were linked with the capital city of Port Moresby by scheduled flights. Only three airports—Port Moresby International, Kieta and Wewak Airports—functioned as international airports, however. Particularly, PMIA had long been the hub of air transport in the country, but its terminal buildings, safety control systems and other facilities had become outdated. Given the future air transport demand, it was considered necessary to immediately repair these facilities and improve their functions so that they would meet the international standards set forth in the conventions of the International Civil Aviation Organization (ICAO).

In addition, the government formed a five-year tourism development plan aimed at attracting visitors from overseas to the country, thus giving priority to promoting the tourism industry. This further necessitated repair and reconstruction of PMIA facilities because the airport was expected to play a very important role as a major gateway to the country.

1.2 Objectives

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

1.3 Project Scope

- (1) Civil engineering facilities (construction of new taxiways, expansion of aprons and building of access roads and parking lots)
- (2) Buildings (terminal buildings, Civil Aviation Authority office building, air traffic control tower, fire engine station building, maintenance hangars and public plazas)
- (3) Utility facilities (water supply facilities and sewerage, drainage, waste disposal facilities, boarding bridges, external power distribution facilities and procurement of fire fighting and rescue vehicles)
- (4) Aviation safety facilities (air traffic control, air communications and wireless air safety facilities, as well as air light and meteorological observation systems)
- (5) Consulting services

1.4. Borrower/Executing Agency

Government of the Independent State of Papua New Guinea/Civil Aviation Authority (CAA)

1.5 Outline of Loan Agreement

Item	Phase I	Phase II
Loan Amount	8,454 million yen	4,309 million yen
Loan Disbursed Amount	8,312 million yen	3,577 million yen
Exchange of Notes	August 1988	February 1996
Loan Agreement	November 1988	February 1996
Terms and Conditions		
-Interest Rate	2.7%	2.7%
-Repayment Period (Grace Period)	30 years (10 years)	30 years (10 years)
-Procurement	General untied (Partial untied for consultant services)	General untied
Final Disbursement Date	July 1998	April 2001

2. Results and Evaluation

2.1 Relevance

The Minister for National Planning indicated, in the Planning and Budget Strategy 1997-2002 submitted to the Parliament in December 1996, that in order to develop and improve the existing transport infrastructure networks, it was necessary to put more funds into development projects implemented by the Department of Transport and Public Works. In particular, aviation was positioned as one of the priority sectors. In the National Transport Development Plan formulated in October 2000 by the Department of Transport and Civil Aviation, a ten-year improvement plan was presented because the existing air transport systems did not conform to the ICAO safety conditions.

In June 1990, in its Papua New Guinea Tourism Promotion Plan, the Papua New Guinea Tourism Promotion Authority set a goal of doubling the number of foreign tourists visiting the country by 1995, as tourists had accounted for only 20% of those foreigners who visited the country. It also pointed out that it was important to increase the number of direct flights between Papua New Guinea and major tourist markets in other countries worldwide.

Based on the foregoing, it can be stated that this project was in accord with the government's medium- and long-term development strategies at the time of appraisal and that it continues to be relevant today.

2.2 Efficiency

2.2.1 Project Scope

A general framework for the project scope was set when the loan agreement was concluded, but it was decided that the detailed scope would be determined later through basic designs by consultants. As a result of the basic designs, demand forecasts were reconsidered and the scale of airport facilities was expanded. Meanwhile, commodity prices rose by approximately 40%. For these reasons, the project cost jumped by approximately 51% as compared to the initial plan.

For this reason, the scale of the project was examined, but the government determined that if the scale of the project was cut down to keep the project cost within the initially planned scope, it would be impossible to meet growing airport demand in the future, necessitating another improvement project before long. Therefore, the government wished to implement the full scope of the project and decided to implement the project in two phases: terminal buildings and other civil engineering facilities, buildings and part of the utility facilities for Phase I (covered by the initial loan) and aviation safety facilities and part of the utility facilities for Phase II (covered by the subsequent loan). Furthermore, pursuant to the request of the government, some of the project components were transferred between the phases with external power distribution facilities included in Phase I.

Of the utility facilities, waste disposal facilities (incinerators) were initially planned to be built according to the request of the division responsible for inspection of imported goods. During the project implementation, however, the plan was cancelled because the type of the planned incinerators was not suitable for disposing of toxic chemical substances. The executing agency had paid approximately 200,000 kina to a contractor in advance, and the payment was non-refundable, resulting in a loss.

2.2.2 Project Cost

Under the initial plan, the project cost was estimated at 8,674 million yen (including a Japanese yen loan of 8,454 million yen). As described above, however, the scale of airport facilities was expanded further to the outcome of the basic designs, and commodity prices rose. For these reasons, the project resulted in a cost overrun. This made it necessary to expend an additional 4,653 million yen (including a Japanese yen loan of 4,309 million yen) for Phase II, for which a contract had been concluded.

2.2.3 Implementation Schedule

Initial plans called for the executing agency to start the consultant selection process in September 1988, complete construction work and equipment procurement in May 1995 and finish supervision of construction work in May 1996. Since the project was divided into two phases after basic designs were carried out, it was decided that for Phase I, construction work should be completed in March 1997 and that for Phase II, production and installation of equipment and other fixtures should be finished by March 1998. As a result, the project was completed in February 2001, about three years later than initially planned, mainly because bids were called for again for Phase II.

2.3 Effectiveness

2.3.1 Traffic Volume and the Number of Arrivals and Departures

Table 1 below shows the number of domestic and international passengers, volume of cargo and mail and number of arrivals and departures, as indicators for measuring the effects of the project. Generally speaking, almost all indicators showed higher figures than the initial targets until 1996, but began to decline

in 1998 and went below the projections in 2002. This is because the number of domestic and international passengers as well as of arrivals and departures all began to fall in 1998. The reasons for this include the reduction in the number of flights due to the lackluster performance of Air Niugini; the decline in the number of foreign workers who used airplanes due to the temporary closure of gold and copper mines in the country and the completion of plant construction projects; and the deterioration of the economy caused by the Asian currency crisis.

Table 1: Number of Passengers, Volume of Cargo and Number of Arrivals and Departures

		88	89	90	91	92	93	94	95	96	97	98	99	00	01
Number of domestic passengers (1,000 persons)	Plan	—	—	—	550	—	—	—	—	650	—	—	—	—	800
	Actual	630	690	699	693	741	767	869	784	825	838	648	579	563	630
Number of international passengers (1,000 persons)	Plan	—	—	—	170	—	—	—	—	191	—	—	—	—	226
	Actual	165	170	186	187	205	225	238	234	230	237	226	228	216	209
Cargo volume (1,000 tons)	Plan	—	—	—	13.7	—	—	—	—	15.8	—	—	—	—	17.7
	Actual	13.1	12.7	11.8	11.6	12.1	10.5	11.4	11.3	11.2	11.2	11.1	11.0	11.0	11.0
Number of arrivals and departures (1,000 times)	Plan	—	—	—	—	—	—	—	—	43.7	—	—	—	46.0	—
	Actual	53.8	56.1	51.2	45.2	53.4	51.9	57.4	51.9	54.6	55.5	42.9	38.4	37.3	37.0

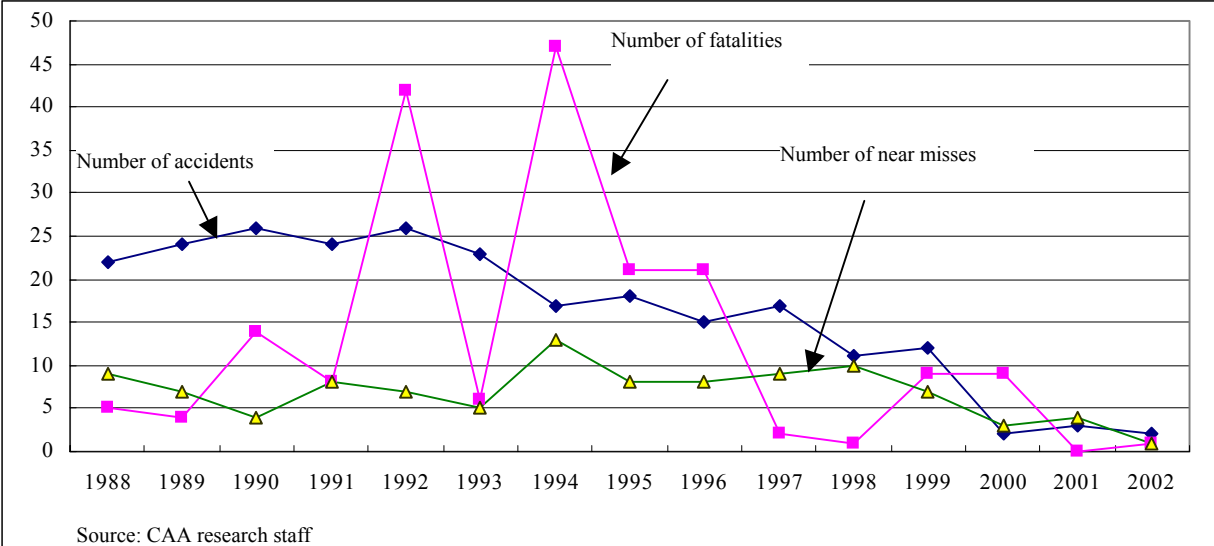
Source: Figures for 1988 to 1994 were obtained from the Office of Civil Aviation, the former executing agency, and those for 1995 to 2001 from estimates by JBIC’s SAPS survey.

2.3.2 Numbers of Accidents, Fatalities and Near Misses

As shown in Figure 1, it can be said that annual statistical data related to aviation safety, including the numbers of accidents, fatalities and near misses, indicates that the completion of the project led to improvements in aviation safety for PMIA.

A look at the number of accidents shows that it has continued to decline sharply since the early 1990s. Actually, the number continued to fall from 1992 and was lowest in 2000, at two. Although in 1994 the number of near misses reached 13, the largest ever, the situation improved from 2000, when the major components of Phase II were almost completed. The number of fatalities has decreased sharply since it reached its peak in 1994, when 47 persons were killed. The project was completed in 2001, and this suggests that improved facilities and aviation systems increased the safety of the airport.

Figure 1: Changes in the Number of Accidents, Fatalities and Near Misses



2.3.3 Recalculation of Financial Internal Rate of Return (FIRR)

FIRR for the project was not calculated at the time of appraisal for Phase I but was calculated at 4.1% for Phase II. FIRR was recalculated in this survey using data provided by CAA and the result was negative.

It is expected in the SAPS survey that revenues will grow at an annual rate of 3.24% from 2002, when CAA, the executing agency, starts to function properly, to 2010; while operation and maintenance costs will decline at an annual rate of 0.196% during the same period. It is expected, however, that it will take longer than the life of the project (25 years) to recover the initial investment costs through revenues. The major reason for the low FIRR seems to be that the sluggish Papua New Guinean economy and the deteriorating performance of Air Niugini has caused the number of flights operated to decrease, resulting in a decline in airport demand.

(Preconditions for recalculation of FIRR)

Benefits: 19.5% of total CAA revenues are calculated as the airport's income.

Costs: Construction and improvement costs for the project, as well as operations and maintenance costs (21% of total CAA costs are calculated as the airport's costs)

Project life: 25 years

2.3.4 Recalculation of Economic Internal Rate of Return (EIRR)

EIRR was calculated at 8.5% at the time of appraisal for Phase I and at 12.8% for Phase II, but when it was recalculated, the result was 4%. It is inferred that the reason for the lower figure than at the time of appraisal is that benefits diminished because the number of passengers on international departure flights and number of foreign tourists visiting the country both fell during the period from 1997 to 2000.

(Preconditions for recalculation of EIRR)

Benefits: Airport facility use fees from international airlines and tourism income from foreign tourists

Costs: Construction and improvement costs for the project, as well as operation and maintenance costs

Project life: 25 years

2.4 Impact

2.4.1 Impact on the Papua New Guinean Economy

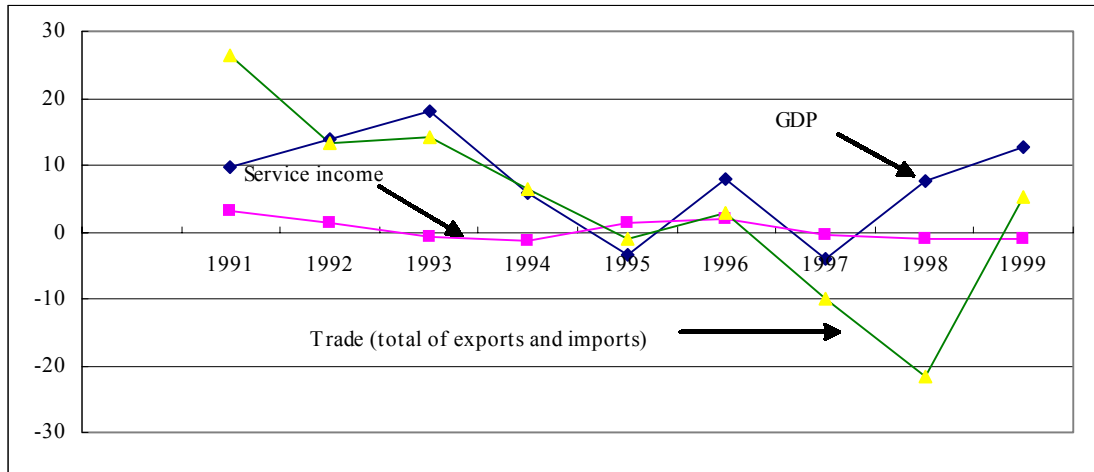
The higher objective of the project was to promote both international and domestic movement of people and goods, thereby revitalizing the country's economy.

A look at the macroeconomic aspects of Papua New Guinea from the viewpoint of GDP growth and the total value of trade (imports and exports) indicates that agricultural production declined due to the effects of the droughts that occurred in 1997 and 1998. In addition, copper and gold production discontinued due to the effects of the temporary closure of mines, and partly because of the effects of the Asian currency crisis, real GDP fell by 3.9% in 1997 and by 3.8% in 1998. Thus the Papua New Guinean economy deteriorated, and its plight has continued to the present day.

With respect to impact on the tourism industry, external service income is examined because there was no data on income from international tourism. As shown in Figure 2, external service income has not grown in the past, and this suggests that income from international tourism has not increased, either.

To the extent that these macroeconomic indicators are used as guidelines for measuring the impact of the project on the country's economy, it was not possible to determine that the project had positive effects on the revitalization of the country's economy as many external factors were involved.

Figure 2: Changes in the Annual Growth Rates for GDP, Trade and Income from External Services



2.4.2 Results of the Passenger Awareness Survey

In this evaluation process, a passenger awareness survey using questionnaires was conducted to obtain a clear understanding of the confidence of passengers in the airport, as well as the convenience and comfort of the airport as compared to 1997, the year before Phase I was completed. The survey was carried out at the domestic and international passenger terminals by random selection of passengers who had used the airport in 1997. The number of valid replies collected during the survey period was 201 (including 101 from business travelers, of whom 44 were foreigners). Tables 2, 3 and 4 indicate that the majority of respondents stated that the airport was better today than in 1997 in terms of overall impression, confidence level, convenience and comfort.

Table 2: Results for the Major Questionnaire Items in the Passenger Awareness Survey

(Unit: Persons, %)

Item	Has improved		Has not changed		Has become worse		Total	
	Persons	%	Persons	%	Persons	%	Persons	%
Overall impression	173	86.1	22	10.9	6	3.0	201	100.0
Confidence of passengers	145	72.9	48	24.1	6	3.0	199	100.0
Level of confidence of passengers in take-offs and landings	115	59.3	73	37.6	6	3.1	194	100.0
Convenience to passengers	152	76.8	35	17.7	11	5.5	198	100.0
Comfort for passengers	173	87.4	24	12.1	1	0.5	198	100.0

Table 3: Results of the Awareness Survey of Passengers Who Visited the Country for Business

(Unit: Persons, %)

Item	Has improved		Has not changed		Has become worse		Total	
	Persons	%	Persons	%	Persons	%	Persons	%
Overall impression	87	86.1	11	10.9	3	3.0	101	100.0
Confidence of passengers	76	76.0	21	21.0	3	3.0	100	100.0
Level of confidence of passengers in take-offs and landings	53	54.1	42	42.9	3	3.0	98	100.0
Convenience to passengers	75	75.8	21	21.2	3	3.0	99	100.0
Comfort for passengers	86	85.1	15	14.9	0	0.0	101	100.0

Table 4: Results of the Awareness Survey of Foreign Passengers Who Visited the Country for Business

(Unit: Persons, %)

Item	Has improved		Has not changed		Has become worse		Total	
	Persons	%	Persons	%	Persons	%	Persons	%
Overall impression	38	86.4	6	13.6	0	0.0	44	100.0
Confidence of passengers	32	78.0	9	22.0	0	0.0	41	100.0
Level of confidence of passengers in take-offs and landings	17	42.5	22	55.0	1	2.5	40	100.0
Convenience to passengers	32	76.2	10	23.8	0	0.0	42	100.0
Comfort for passengers	34	77.3	10	22.7	0	0.0	44	100.0

2.4.3 Results of the Awareness Survey of Persons Concerned with Aviation

During the on-site survey, pilots and managers from major airline companies were interviewed to compare the efficiency of PMIA and the safety level of its new aviation systems with the systems as they were prior to the implementation of the project. Three responses were received.

All respondents recognized that the overall efficiency and safety level of the airport had been improved since new systems were introduced. For example, one airline replied, “The condition of the airport has significantly improved, and the airport is more reliable than before,” and another stated, “If this new airport had not been constructed, the inconveniences suffered at the previous passenger terminal would have been continued.”

With respect to the electricity, light and meteorological observation systems, meanwhile, unstable power supplies for aviation systems and other problems were pointed out. One respondent expressed the opinion that the benefits of the automatic meteorological observation system were neutralized by the highly changeable weather conditions peculiar to the tropical region. Maintenance-related problems included the destruction of facilities by illegal trespassers from outside, difficulties in making telephone connections and failure of tower facilities and television monitors to operate properly. Moreover, lack of training, leading to the occurrence of near misses due to mistakes made by radar operators, was indicated.

2.5 Sustainability

2.5.1 Executing Agency

The executing agency for the project was the Office of Civil Aviation (OCA) until January 2001, but under the Civil Aviation Act 2000, the agency was reorganized as the Civil Aviation Authority (CAA). Currently, the CAA manages 23 airports, including PMIA.

2.5.2 Organizational System

The CAA was established legally in January 2001, but the Department of Personnel Management did not approve the organizational structure of the CAA because the number of its directors and employees had not been reduced in a satisfactory manner. For this reason, the positions of the CAA’s directors and employees remained temporary for more than 18 months, making it impossible for them to take responsibility for the operation of PMIA.

Under the new organizational structure approved by the Department of Personnel Management in July 2002, the CAA had divisions and functions responsible for air transport operations, aviation technology support, management and technical support for airports, operation of PMIA, national meteorological stations, services for corporate clients and aviation safety regulations. Operations and maintenance are also undertaken by the CAA, including operation of terminal buildings, airport operation and improvement, rescue and fire prevention support, aviation safety support, and commercial activities.

Prior to the reorganization, the CAA consisted of 946 full-time and 230 part-time personnel, but under the new organization, the agency has 749 full-time and 65 part-time personnel.

2.5.3 Operation and Maintenance

(1) Airport Operation and Management

Due to frequent organizational changes at the CAA, the responsibilities of divisions are not clearly defined and the overall operational system is weak. In addition, because of insufficient training in facility management, some airport facilities could not be fully utilized even after they became operational.

(2) Air Side Management

At the moment, there is no problem with the runway capacity of the airport. Overlaying of paving is

currently under way with the support of the Australian Agency for International Development. If airport demand grows in the future due to expanded scope of aircraft movement, increase in the number of large aircraft used and other factors, it will be possible to increase the runway capacity of the airport by, for example, extending the existing taxiways. Due to insufficient data on flight information, however, it is impossible to develop flight operation plans regarding runways, aprons and terminal congestion. Almost all of the apron and other air side operations are left to airline companies, and there is concern over safety management, which is essentially the responsibility of the airport operator. Ground service facilities located in the aprons for international and domestic flights are also insufficient, forcing airline companies to cope with this problem by using aprons at the old terminals. Due to lack of data on gate allocation and of knowledge of the types and number of ground support systems, it cannot be said that apron operation is efficient.

(3) Passenger Service Management

Flight information monitors are broken, and data input tends to be delayed when flight schedules are changed or flights are delayed. There is no timetable containing all flight schedules, and airport personnel do not have full knowledge of flight schedules. As a result, passengers cannot obtain sufficient flight information. The immigration area is often crowded due to lack of immigration officers. Furthermore, manual issuance of visas takes time, a factor increasing the crowdedness of the area. Arriving passengers have to first make a long line in front of the exchange windows in the customs area and then go through customs and pay visa fees. The counters for connections to domestic flights are located in the customs area, and passengers making a line in front of the counters sometimes block the exit from the area.

(4) Safety Management

Access to air side work sites is controlled by one person all day, and the opening and closing of entrances are sometimes not controlled at all. Entry from the maintenance hangars of airlines, cargo warehouses and public areas used by passengers and visitors is not monitored. The airport is surrounded by fences, but the north gate is open. Six air-conditioner gauges were stolen in July 2002, and air-conditioning systems were stolen in October of the same year.

There are manuals for disaster prevention measures, but no training is provided. Hijack prevention inspections are performed by Air Niugini but are perfunctory.

2.5.4 Financial Status

(1) Financial Performance

The OCA, the former executing agency for the project, was prone to suffering huge losses. In 1998, the agency posted a loss of 39.7 million kina, though an improvement was made if the figure is compared to the loss of 69.7 million reported for the previous year. After the establishment of the CAA, the financial performance of the executing agency substantially improved as compared to that of the OCA, with a loss of 6.9 million kina reported for 2001 and a loss of 6.6 million kina for the January-August period of 2002. The CAA, however, does not have an accounting system based on balance sheets, income statements and other account statements, but compiles fund revenue and expenditure statements based on simple ledgers. The agency cannot fully grasp accrued income and accrued expenses. Therefore, the accurate financial condition of the agency is not known.

(2) Future Outlook

According to demand forecasts based on JBIC's Special Assistance for Project Sustainability (SAPS) Survey, it is predicted that the CAA will post a loss of 4.7-12 million kina in 2010. In other words, based on the current demand forecasts, the CAA will not be able to significantly improve its financial condition if

the situation stands as it is.

In conjunction with the problems in airport operation and financial management identified above, proposals for improvement have been made based on JBIC's SAPS survey in order to bolster the sustainability of the project.

3. Feedback

3.1 Lessons Learned

In projects implemented in countries that have little experience in project implementation, there are cases in which adequate feasibility studies are not carried out. Therefore, even if separate preliminary surveys have already been conducted, their correctness should be carefully examined to ensure the feasibility of projects.

In evaluating the relevance of the plans for the project, they were considered to be in accord with the development plan of the country both at the time of appraisal and at present. As a result of implementing basic designs after the loan agreement, the project resulted in a cost overrun of around 50% in terms of construction costs due to the sharp rise in commodity prices. Cost overruns due to inadequate feasibility studies are found in other projects implemented in Papua New Guinea. In the future, even if preliminary surveys and other activities have already been conducted, it is essential for JBIC to examine their accuracy level and correctness more carefully, and if necessary, JBIC should take measures such as conducting additional surveys.

3.2 Recommendations

(To the executing agency)

In preparation for transfer of all assets and liabilities to the CAA in 2005 as agreed with the Papua New Guinean government, it is vital for the CAA to take the following financial measures:

- (1) Introduce corporate accounting with the help of accounting experts (and particularly to grasp its states of credit and debt, including accrued income and accrued expenses)
- (2) Monitor its present financial condition and develop plans for ensuring profitability in the future (particularly, future expenditures and their timing)
- (3) Take various measures to strengthen its financial structure (particularly, stepping up its efforts to collect airport facility use fees)

(To JBIC)

According to the agreement between the Papua New Guinean Government and the CAA, the Japanese yen loan will be repaid by the CAA starting 2005, but JBIC should confirm the facts (whether the borrower will be changed or not). In addition, JBIC should follow up from time to time on the progress made by the CAA in implementing the proposals made in the SAPS survey and, as necessary, take measures including sending financial experts in order to strengthen the financial structure of the CAA.

Comparison of Original and Actual Scope

Item	Plan	Revised Plan	Actual
1. Project Scope			
(1) Civil engineering facilities related to airport construction	Construction of new taxiways, expansion of aprons, construction of access roads/ parking lots and other facilities	As left	As left
(2) Buildings	Terminal buildings, Civil Aviation Authority office building and air traffic control tower, fire engine station building, maintenance hangars and public plazas	Construction of separate terminal buildings for international and domestic flights	As left
(3) Utility facilities	Water supply facilities and sewerage, drainage, waste disposal facilities, boarding bridges and external power distribution facilities	Increase in these facilities due to the construction of separate terminal buildings for international and domestic flights	As left
(4) Aviation safety facilities	Procurement of two fire fighting/rescue vehicles Air traffic control facilities, air communications facilities, wireless aviation safety facilities, aviation lights and meteorological observation system	Procurement of three fire fighting/rescue vehicles As left	As left
2. Implementation Schedule			
Consultant selection	Sep. 1988 – Jul. 1989		Apr. 1990 – Feb. 1991
Review of existing surveys, as well as basic and detailed designs	Jul. 1989 – Dec. 1990		Feb. 1991 – Aug. 1992
Bidding procedures	Dec. 1990 – Mar. 1992		Aug. 1992 – Nov. 1994
Equipment procurement and construction work	Mar. 1992 – May 1995		
Construction work (as part of Phase I)		Apr. 1995 – Mar. 1997	Jun. 1995 – May 1997
Procedures for procuring equipment and other fixtures (as part of Phase II)		Jan. 1996 – Nov. 1996	Mar. 1996 – Aug. 1999 (including rebidding)
Production and installation of equipment and other fixtures (as part of Phase II)		Nov. 1996 – Mar. 1998	Aug. 1999 – Aug. 2001
3. Project Cost			
Foreign currency	5,918 million yen	10,227 million yen	N.A.
Local currency	2,756 million yen (19,405 thousand kina)	3,100 million yen (23,367 thousand kina)	N.A.
Total	8,674 million yen	13,327 million yen	N.A.
ODA loan portion	8,454 million yen	12,763 million yen	11,889 million yen
Exchange rate	1 kina = 142 yen (1988)	1 kina = 86.84 yen (1995, only applied to Phase II)	

Third Party Evaluator's Opinion on Port Moresby International Airport Redevelopment Project (1) and (II)

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1. Relevance

The project objectives (the promotion of civil aviation and tourism) of the Transportation sector met the National Development Policy and the Development Plan (economic growth, fiscal independence, employment creation and regional development) at the time of appraisal. Unfortunately due to lack of support from weak supporting institutions such as Air Niugini, the Civil Aviation Authority, the Tourism Promotion Authority, the Customs division of the Foreign Affairs Department, PNG Power, threat of terrorism, the onset of SARs and the weakening Kina, the project objectives have not been fully realized. PMIA depend on its users and those who depend on it, such as the traveling public, Air Niugini, CAA, TPA, importers and exporters etc, to realize its objectives.

The intentions of the project have responded well to some beneficiary needs and demands such as improved air safety, passenger convenience and comfort, tourism, trade etc. However, the project has failed to cater for beneficiary needs and demands in other areas. For example, there is no designated smoking area in the departure lounge for both the domestic and international terminals, the canopy (or overhang) should have extended out to the waiting area of taxi cabs and meeters and greeters, the carpets are rotting and smelling even after been steam cleaned and the carpet seating should have been vinyl or plastic type because such material is longer lasting. These needs could have been addressed during the implementation period.

2. Impact

The overall goal of the project has not been realized fully because of the reasons stated above. Because of the unavailability of data, such as data on the volume of trade in and out of PMIA with the rest of the world and with the rest of PNG and income derived from tourism, it is difficult to measure or quantify the impact of the project on the economy. What is abundantly clear is that air fares and freight charges have increased over the years which has resulted in a corresponding decline in passenger departures and arrivals and volume of cargo. This can be partly attributed to the monopoly enjoyed by Air Niugini. Job insecurity remains a problem at CAA because its structure has not been approved yet. Revenue collection and recouping by PMIA has been hindered by under-funding from CAA which has implications for annual maintenance expenditures. TPA appears to be not aggressive enough in marketing tourism internationally. Due to regular power outages, PMIA has installed back-up diesel generators which have added to operating costs.

There are no real negative impacts on the environment. Noise pollution from airplanes is not a real concern for now. One other concern is the poor road design. There are entries and exits on the east and west side of the airport and there are businesses and residences on either side. Those users that do not need to go to the terminals on the west side are inconvenienced because they have to drive through the parking lots or along the road next to the terminals. Road blocks have been put up from time to time to direct motorists to the designated parking areas further inconveniencing the other road users. Finally, the design oversight mentioned above may impinge on domestic laws that relate to fire safety and public health.