



Periodic Financing Request Report

Project Number: 43141-044
MFF Number: 0039
December 2016

Papua New Guinea: Civil Aviation Development Investment Program (Tranche 3)

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CURRENCY EQUIVALENTS
(as of 15 October 2016)

Currency Unit	–	kina (K)
K1.00	=	\$0.31
\$1.00	=	K3.16

ABBREVIATIONS

ADB	–	Asian Development Bank
ANG	–	Air Niugini
ASL	–	Air Services Limited
CAA	–	Civil Aviation Authority
CADIP	–	Civil Aviation Development Investment Program
CASA	–	Civil Aviation Safety Authority
DSC	–	design, supervision and construction
EIRR	–	economic internal rate of return
FAM	–	facility administration manual
FIRR	–	financial internal rate of return
GAP	–	Gender Action Plan
ICAO	–	International Civil Aviation Organization
MFF	–	multitranches financing facility
NAC	–	National Airports Corporation
OCR	–	ordinary capital resources
PIU	–	project implementation unit
PNG	–	Papua New Guinea

NOTE

- (i) The fiscal year (FY) of the Government of Papua New Guinea ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

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TRANCHE AT A GLANCE

1. Basic Data		Project Number: 43141-044	
Project Name	Civil Aviation Development Investment Program, Tranche 3	Department /Division	PARD/PNRM
Country Borrower	Papua New Guinea The Independent State of Papua New Guinea	Executing Agency	National Airports Corporation
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Air transport		248.00
		Total	248.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG) Regional integration (RCI)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive Pillar 2: Trade and investment	Climate Change impact on the Project	Low
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD) Private sector development (PSD)	Institutional development Organizational development Promotion of private sector investment Public sector goods and services essential for private sector development	Effective gender mainstreaming (EGM)	✓
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting Household Targeting SDG Targeting SDG Goals	No No Yes SDG1, SDG8	Nation-wide	High
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: B Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		248.00	
Sovereign MFF-Tranche (Loan): Asian Development Fund		35.00	
Sovereign MFF-Tranche (Loan): Ordinary capital resources		213.00	
Cofinancing		0.00	
None		0.00	
Counterpart		27.00	
Government		27.00	
Total		275.00	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

TRANCHE AT A GLANCE

Date of Receipt by ADB of PFR: 16 June 2016

Tranche Number: 3

10. Country Operations Business Plan

CPS
COBP

<http://www.adb.org/countries/papua-new-guinea/publications?page=2>

<http://www.adb.org/countries/papua-new-guinea/publications?page=2>

11. Tranche Summary

The Tranche 3 will continue from Tranches 1 and 2, to establish a sustainable civil aviation network to support the economic growth of the country. Tranche 3 will further strengthen and sustain the operations of National Airports Cooperation (NAC), PNG Air Services Limited (PNG ASL), and Civil Aviation Safety Authority of PNG (CASAPNG). The national airports have low level of compliance with safety and security standards, creating risks of accidents and illegal movements of people and goods. The air-side runway pavements, terminal buildings and utilities are in poor condition. Tranche 3 will improve and upgrade nine national airports including pavement strengthening, runway extensions, security fencing, apron extensions, fire stations, traffic control tower and terminal buildings. In addition, runway lights at seven airports, runway security fencing at three other airports and new market sheds will be constructed for women to promote local artifacts.

Impact: To achieve economic growth and poverty reduction in project areas.

Outcome: Safe, more efficient, and more accessible all-weather air transport services in project areas.

Outputs: (i) Reformed Institutions - Sustainable and focused operational units for airports, air traffic services, and regulatory oversight established, (ii) Improved Infrastructure - Airside infrastructure safety and security certification requirements met, and (iii) Improved operations - Airport maintenance practices improved and runway lights for safe night landing operations introduced to meet airline safety requirements.

Implementation Arrangements: National Airports Corporation will be the executing agency.

Project Readiness: The government remains committed to the successful implementation of the Investment Program. NAC, has completed technical designs of civil works for four major airports out of the total nine airports under Tranche 3. In addition, security fencing and associated works design is also ready as a part of advance action. Environment and social safeguard documents for all subprojects have been prepared and posted on the ADB website. Advance action is applied for procurement for two largest civil works contracts for Momote and Mount Hagen airports which constitute 35% of the engineer's estimate for goods and works contracts. Contract signing for Momote airport is set on 16 Dec whereas Bid for Mount Hagen is under evaluation.

12. Significant Developments in the MFF and Previous Tranches

Under Tranche 1, a loan of \$95 million equivalent from ADB's ordinary capital resources (OCR) and ADB's Special Funds resources were approved on 28 January 2010 and made effective on 22 March 2010. Initially, NAC, the Executing Agency (EA) lacked capacity in conducting procurement during the first two years, which resulted in a delay in the mobilization of the DSC firm and subsequent procurement activities, resulting in a necessary extension of two and a half years of Tranche 1. Since then, the capacity of the project implementation unit (PIU) has improved. The Civil Aviation Authority (CAA) of PNG was restructured into three entities, namely, NAC, CASA PNG, and PNG ASL in 2010 and are in operation. NAC took over the role of the EA from the CAA. The projects completed are: Instrument Landing System, supply of three fire trucks and station and domestic apron extension for Port Moresby airport, security fencing for five airports; new terminal building for Mount Hagen airport; and Hoskins airport upgrade (runway extension, airside improvements and new terminal building). All completed infrastructure are now in operation. Tranche 1 was completed with reduced scope due cost overruns in Dec 2015 and financially closed on 15 July 2016.

A loan of \$130 million from ADB's OCR and ADB's Special Funds resources were approved under Tranche 2 on 25 November 2013 and made effective on 16 April 2014. Contracts for the improvement of Vanimo, Girua, and Chimbu airports together with the nine fire trucks were awarded in November 2014. The contract for Goroka airport was awarded in October 2015 and the fencing work for Momote and Buka airports were awarded in May and October 2016 respectively. Under goods, supply of fencing materials for Momote and Buka airports was awarded in November 2015. The three lots of contract packages under communication, navigation, surveillance and air traffic management (CNS/ATM) were awarded in February 2016. As of 07 Nov 2016, Tranche 2 has awarded \$90million of contracts and disbursed \$54.6million, representing 68% and 41% respectively. Tranche 2 is running within schedule and due for completion in September 2017.

13. Milestones

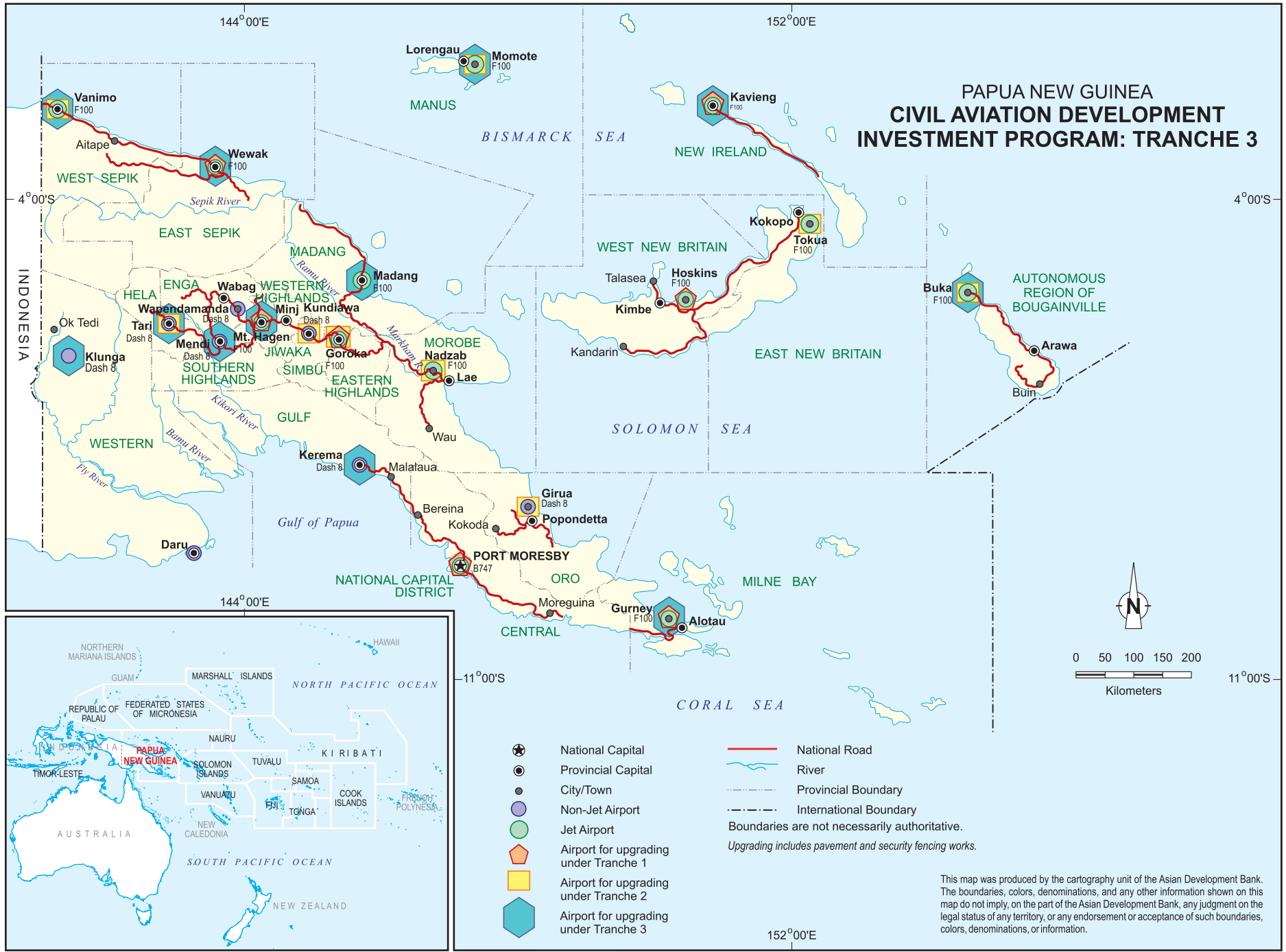
Estimated Approval	Estimated Completion ^a
15 November 2016	31 December 2018

14. Linked Documents

	Required Document	Disclosure Date
(i) Environment	IEE - Initial Environment Examination	
Weblink:	http://www.adb.org/projects/documents/png-cadip-t3-jun-2016-iee	30-MAY-2016
(ii) Involuntary resettlement	RP - Resettlement Plan	
Weblink:	http://www.adb.org/projects/documents/png-cadip-t3-jun-2016-rpddr	03-JUN-2016
	RP - Resettlement Plan	
	http://www.adb.org/projects/documents/png-cadip-t3-jun-2016-rp	30-MAY-2016

^a For Tranches, this refers to the financial closing date.

PAPUA NEW GUINEA CIVIL AVIATION DEVELOPMENT INVESTMENT PROGRAM: TRANCHE 3



16 PNG 16-1672 AV

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I. BACKGROUND

1. The challenging geographic conditions found in Papua New Guinea (PNG) makes the movement of people and goods difficult, and creates a high reliance on aviation services for tourism, business, exports and imports, domestic freight, and social cohesion. PNG's aviation environment is challenging, with a history of substandard infrastructure and maintenance, an ageing fleet, a difficult environment in which to navigate, an insufficient funding base, and a regulatory system that is struggling to keep up with changes in aviation; these factors increase both the risk of aircraft accidents and the level of economic inefficiency. Aviation accidents and incidents continue to occur in PNG, including serious tragedies such as the forced landing of the 2011 Airlines PNG flight that resulted in 28 fatalities. The market for domestic air services is not large, consisting of three major operators: Air Niugini (ANG), PNG AIR and Travel Air. International operations are managed by three operators: ANG, Qantas and (beginning in 2015) Philippine Airlines. ANG is the dominant operator in domestic and international routes. A summary of the Aviation Sector Assessment is attached as Supplementary Appendix A.

2. The Civil Aviation Authority of PNG (CAA) was restructured in 2010 into three entities, National Airports Corporation (NAC), Civil Aviation Safety Authority (CASA) and Air Services Limited (ASL). The NAC and ASL are responsible for providing services, and need to improve air and land side infrastructure to meet minimum safety and security standards as set by the International Civil Aviation Organization (ICAO) and CASA (the government's regulatory entity for the PNG aviation industry). The ICAO conducted an audit under the Universal Oversight Audit Program in 2009, followed by a coordinated validation mission in 2013, and gave PNG an effective implementation rating of 50.3%. CASA's short-term goal is to achieve a global score of 61%; its strategic goal is to continually improving this measure of PNG's performance. After the release of ICAO audit findings in 2009, the main challenge for the NAC was to achieve certification to continue operations at all national airports through targeted investments in rehabilitation and equipment. In the medium term, NAC is seeking to upgrade selected national airports to accept larger aircraft and thereby eliminate transport bottlenecks, accommodate airline expansions, and enable growth outside of Port Moresby. However, NAC, CASA and ASL face a clear funding gap in achieving this.

3. The Asian Development Bank (ADB) approved a multitranche financing facility (MFF) for the Civil Aviation Development Investment Program (CADIP) on 1 December 2009 for an aggregate of \$480 million equivalent to be provided in four tranches.¹ The CADIP program was designed to improve compliance with ICAO and CASA safety and security standards. The investment program is aligned with the government's Development Strategic Plan 2010–2030,² and the National Transport Strategy³ both of which identify the provision of basic access to remote communities by air as a national priority.

4. The investment program focuses on improving 19 of PNG's 22 national airports, which sustain the bulk of the country's domestic passenger and freight traffic. CADIP intends to

¹ ADB. 2009. *Report and Recommendation of the President: Proposed Multitranche Financing Facility to Papua New Guinea for Civil Aviation Development Investment Program*. Manila. The MFF was originally envisaged as comprising four tranches, for a total of \$480 million. However, due to the delay in implementation of tranche 1 and in consideration of the facility availability period (from 2009 until 2018), the remaining two tranches (tranches 3 and 4) were merged and are now proposed to be provided under a single tranche (the proposed tranche 3) of \$248 million. The resulting total facility amount will be \$473 million.

² Government of Papua New Guinea, Department of National Planning and Monitoring. 2010. *Development Strategic Plan, 2010–2030*. Port Moresby. www.treasury.gov.pg/html/publications/files/pub_files/2011/png-development-strategic-plan.2010-2030.pdf

³ Government of Papua New Guinea. June 2013. *National Transport Strategy*. Port Moresby.

establish a sustainable civil aviation network to support economic growth and reduce poverty in project areas by realizing safer, more efficient, and more accessible all-weather air transport services. So far, two tranches have been approved in the aggregate amount of \$282 million equivalent (\$225 million equivalent of ADB financing). Tranche 1 was completed in December 2015; tranche 2 is under implementation and is expected to be complete in September 2017, as scheduled.

II. ASSESSMENT OF IMPLEMENTATION

5. **Tranche 1.** A loan of \$25 million from ADB's ordinary capital resources (OCR) and a loan of \$70 million equivalent from ADB's Special Funds resources were approved on 1 December 2009 and made effective on 22 March 2010. The government provided counterpart funding of \$17 million.

6. Tranche 1 included four major components: (i) institutional and sector reforms to separate legal entities representing functional responsibilities (i.e., air transport safety regulator, airport owner, and air traffic controller); (ii) improvement of five national airports and installation of security fences at five airports; (iii) procurement of equipment for navigation, communication and surveillance; and firefighting trucks; and (iv) consulting services; design, supervision and construction (DSC); and capacity development. NAC took over the role of the executing agency for the investment program from the PNG CAA, but initially lacked capacity, resulting in a delay in the mobilization of the DSC and subsequent procurement activities, and requiring extension of tranche 1 to 2.5 years. The capacity of the CADIP project implementation unit (PIU) has subsequently improved.

7. Cost overruns and depreciation of the US dollar against the PNG Kina resulted in a reduction in the number of airports planned for improvement, from five to three (Port Moresby, Mount Hagen, and Hoskins).⁴ Improvement of two national airports (Gurney and Wewak) as well as pavement improvements for Mount Hagen airport were not implemented and deferred to tranche 3. The Port Moresby airport apron extension started in June 2012 and was completed in September 2013. The Mount Hagen airport terminal building and Hoskins airport pavement improvements and runway extension contracts were awarded in April 2013 and completed in September 2015. All contracts for fencing works were completed in September 2013. Procurement of an Instrument Landing System for Port Moresby was completed in August 2011.⁵ Three fire trucks and a fire station in Port Moresby were commissioned in March 2013. Engagement of a DSC firm has strengthened the capacity of the PIU to expedite the progress of civil works and procurement of equipment. The preparation of tranche 2 provided opportunity for on-the-job training of PIU staff. Delegation of works associated with design and supervision to young counterpart engineers increased their sense of responsibility and skills.

8. Tranche 1 loan was financially closed on 15 July 2016 with 94.4% disbursements. No contract for long-term performance-based maintenance was awarded at the time of the loan closing under tranche 1.⁶

⁴ Price increases relate to inputs such as steel, concrete and other non-imported items, including labor. The kina strengthened from \$1.0 = K2.66 in October 2009 to \$1.0 = K2.15 in July 2013.

⁵ A ground-based instrument that provides precision guidance to aircraft using a combination of radio signals when landing in reduced visibility resulting from fog and rain.

⁶ Long-term performance-based maintenance contracting for five national airports was an indicator under the tranche 1 "Improved Infrastructure" design and monitoring framework output.

9. **Tranche 2.** A loan of \$115 million from ADB's OCR and a loan of \$15 million equivalent from ADB's Special Funds resources were approved on 25 November 2013 and made effective on 16 April 2014. The government provided counterpart funding of \$40 million, which includes local taxes and duties.

10. Tranche 2 has three major components: (i) strengthening and sustainable operations of the reformed institutions (NAC, ASL, and CASA); (ii) improvement of four national domestic airports, and installation of security fences at two airports; and (iii) procurement of equipment for communication, navigation, surveillance and air traffic management; and nine fire trucks for various airports.

11. Contracts for the improvement of Vanimo, Girua, and Chimbu airports together with the fire trucks were awarded in November 2014. The contract for Goroka airport was awarded in October 2015, and the fencing work for Momote airport and Buka (last works contract) was awarded in May and October 2016 respectively. Under goods, contract for the supply of fencing materials for Momote and Buka airports was awarded in November 2015. Six of the nine fire trucks were delivered and commissioned in January 2016. The three lots of contract packages under communication, navigation, surveillance and air traffic management were awarded in February 2016.

12. As of 07 November 2016, tranche 2 has awarded \$90 million of contracts (68% of the tranche allocation) and disbursed \$54 million (41% of the tranche allocation), over 77% of the elapsed loan period. Disbursement stands at 60% of total contract awards has (\$54.6 million against \$88.9 million). The total investment program contract awards are \$177.1 million (79% of the total investment project amount), with disbursements of \$143.3 million (64% of the total). Overall implementation progress is on track, with 76% of the loan implementation period elapsed.

13. The requirements of the framework financing agreement and loan agreements are being complied with. The framework financing agreement sets out 12 undertakings, of which 9 have been complied with and 3 are partially complied with to date. Compliance with project and loan covenants is mostly satisfactory, except the financial covenants with regard to submission of the entity's audited financial statements,⁷ which has not been complied with.

14. A resettlement framework was prepared for the investment program. Although it was classified as category B in view of potential minor land acquisition and involuntary resettlement, the civil works under tranches 1 and 2 did not involve resettlement. Tranches 1 and 2 do not have major environmental impacts and are classified as environment category B. NAC prepared an environment assessment and review framework for the investment program. Contractual agreements with the civil works contractors include the environmental management and monitoring requirements, and environmental management plans.

15. Tranche 1 was classified category B and tranche 2 category C for indigenous peoples, and do not have adverse impacts on, or target any, particular tribes or ethnic groups.

⁷ The audit of NAC financial statements from FY2012 to FY2015 is in progress and expected to complete by December 2016. Tranche 3 disbursements are linked with the submission of the entity's audited financial statements of FY 2010-2014 to ADB.

III. PERIODIC FINANCING REQUEST

A. Impact and Outcome

16. The impact of the proposed tranche 3 will be to achieve economic growth and poverty reduction in project areas. The outcome will be safer, more efficient, and more accessible all-weather air transport services in the project areas.

B. Outputs

17. **Output 1: Reformed institutions.** Tranche 3 will further strengthen and sustain the operations of NAC, ASL, and CASA through targeted training. Tranche 3 will also support a review by NAC of its current aeronautical charges, which were last revised in 2013, and updating of the CASA business plan. It will also support capacity development of the Accident Investigation Commission, whose purpose is to determine the circumstances and causes of aviation accidents and incidents.

18. **Output 2: Improved infrastructure.** Tranche 3 will finance infrastructure improvements at nine airports to meet safety and security certification, and operational requirements of airlines. The upgrading works include Momote airport (pavement strengthening, runway extension and a new terminal building); Mount Hagen airport (pavement strengthening); Mendi airport (pavement strengthening, airport security fencing and a new terminal building); Kavieng airport (pavement strengthening, runway extension and a new terminal building); Buka airport (pavement strengthening, runway extension and a new terminal building); Gurney airport (runway extension and refurbishment of the existing terminal building); Madang airport (pavement strengthening and a new terminal building); Wewak airport (pavement strengthening and a new terminal building); and Vanimo airport (runway extension). In addition, airport security fencing will be installed at Kerema, Kiunga and Tari airports, and new market sheds will be constructed for women to promote local artifacts within the premises of eight airports.

19. **Output 3: Improved operations.** Tranche 3 will support (i) construction of a new air traffic control tower at Mount Hagen airport, (ii) provision of airfield lighting for safe night operations at seven national airports, (iii) pavement maintenance work, and (iv) construction of new fire stations at Madang and Mount Hagen airports.

20. For tranche 3 NAC will engage individual consultants and a consulting firm to assist the PIU to oversee civil works design and construction, and procurement; and to strengthen financial management.

21. The proposed tranche 3 is a priority of the national government and meets the MFF's subproject selection criteria. The project is consistent with the ADB country partnership strategy, 2016–2020; and is included in the country operations business plan, 2017–2019.⁸

C. Investment and Financing Plan

22. Tranche 3 is estimated to cost \$275 million (Table 1).

⁸ ADB. 2015. *Country Partnership Strategy: Papua New Guinea, 2016–2020*. Manila; ADB. 2016. *Country Operations Business Plan: Papua New Guinea, 2017–2019*. Manila.

Table 1: Tranche 3 Investment Plan by Project Component
(\$ million)

Item	Amount ^a
A. Base Cost ^b	
1. Airport Improvements	219.7
a. Civil Works	193.8
b. Goods	12.2
c. Land Acquisition	8.4
d. Consulting Services	5.4
2. Program Support and Capacity Development	3.2
3. Project Administration	5.2
Subtotal (A)	228.1
B. Contingencies ^c	38.2
C. Financial Charges During Implementation ^d	8.7
Total (A+B+C)	275.0

^a Includes taxes and duties of \$18.6 million to be financed by government counterpart funds. Asian Development Bank (ADB) financing may also cover taxes and duties for the project in accordance with requirements of ADB. 2012. Cost Sharing and Eligibility of Expenditures for ADB Financing. *Operations Manual*. OM H3/BP. Manila.

^b As of 1 March 2016. In end-2015 prices.

^c Physical contingencies for civil works computed at 12% of base costs, and 5% for goods, consulting services, capacity development and recurrent costs. Price contingencies were calculated at 1.48% of foreign components of the costs and 5.88% of the local components of the project costs; includes provision for potential exchange rate fluctuation using the purchasing power parity of exchange rate concept.

^d Includes interest and commitment charges. Interest during construction on the Asian Development Fund loan has been computed at 2% per annum. Interest during construction on the ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed-swap rate plus a spread of 0.50%, and a maturity premium of 0.10%. A commitment charge for the OCR loan is 0.15% per year to be charged on the undisbursed loan amount.

Sources: National Airports Corporation and Asian Development Bank

23. The government will finance the amount of \$27 million equivalent including taxes, duties, and land acquisition charges as counterpart financing. Interest during implementation will be financed by the ADB.

24. The government has requested a loan of \$213 million from ADB's OCR to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility,⁹ a commitment charge of 0.15% per year, and such other terms and conditions set forth in the loan and project agreements.

25. The government has also requested a loan in various currencies equivalent to \$35 million from ADB's Special Funds resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, an interest rate of 2.0% per annum during the grace period and thereafter, and such other terms and conditions set forth in the loan and project agreements.

26. The financing plan is in Table 2.

⁹ Interest includes a maturity premium of 10 basis points per annum. This is based on the above loan terms and the government's choice of repayment option and dates.

Table 2: Financing Plan – Tranche 3

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary Capital Resources (loan)	213.0	77.5%
Asian Development Fund (loan)	35.0	12.7%
Government of Papua New Guinea	27.0	9.8%
Total	275.0	100%

Source: Asian Development Bank

D. Implementation Arrangements

27. NAC will continue its role as executing authority for tranche 3. A project steering committee established under tranche 1 will continue to oversee and monitor project implementation. NAC will be responsible for project implementation. Individual consultants and a DSC firm will be recruited to support the PIU in accordance with ADB Guidelines on the Use of Consultants (2013, as amended from time to time). NAC will procure civil works, goods, and equipment under a number of procurement packages through international competitive bidding and shopping in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). The DSC firm hired under tranche 3 will also conduct due diligence for a loan for phase 2 of CADIP to upgrade the regional airports for larger aircrafts and rehabilitate rural airstrips. The implementation arrangements are described in detail in the updated facility administration manual (FAM) (Appendix 4).

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	October 2016–December 2018		
Project Completion Date	31 December 2018		
Loan Closing Date	31 December 2018		
Management			
(i) Oversight body	CADIP Project Steering Committee comprising: NAC (chair) and the following members: Air Niugini, ADB, CASA, Department of Finance, Department of National Planning and Monitoring, Department of Treasury, Department of Transport, ASL, AIC		
(ii) Executing agency	NAC		
(iii) Key implementing agencies	NAC, ASL, CASA, AIC		
(iv) Implementation unit	PIU in NAC: CADIP 34 staff; international consultants:132 person-months		
Procurement	International competitive bidding(works/goods)	11 contracts	\$201.69 million
	Shopping	25 contracts	4.28 million
Consulting services	Consulting firm	84 person-months	\$3.55 million
	Individual consultants	48 person-months	\$1.34 million
Retroactive financing and/or advance contracting	Advance action for procurement of civil works will be applied for Momote and Mount Hagen airports and the DSC firm. Retroactive financing is requested for eligible expenditures up to 20% of the total loan amount, incurred prior to loan effectiveness but not earlier than 12 months before the date of signing of the legal agreement.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, AIC = Air Investigation Commission, ASL = Air Services Limited, CADIP = Civil Aviation Development Investment Program, CASA = Civil Aviation Safety Authority, DSC = Design and Supervision Consultants, NAC = National Airports Corporation, PIU = Project Implementation Unit,
Source: Asian Development Bank.

E. Project Readiness

28. The PIU is adequately staffed and functional, with technical, procurement, financial and safeguards specialists. NAC has completed civil works technical designs for four of nine major airports. In addition, design of the security fencing and associated works is also ready as part of advance action. The master bidding document for all International Competitive Bidding (ICB) works has been approved as part of project readiness. Environment and social safeguard reports have been prepared and are posted on the ADB website.¹⁰

F. Advance Contracting and Retroactive Financing

29. Advance action will be applied for procurement of the DSC firm and the two largest civil works contracts (for Momote and Mount Hagen airports; bids are under evaluation). These contracts constitute about 35% of the cost estimate for goods and works contracts. The government and NAC have been informed that advance action does not commit ADB to finance the proposed subprojects under tranche 3 or related procurement costs. Retroactive financing is requested for eligible expenditures up to 20% of the total loan amount, incurred prior to loan effectiveness, but not earlier than 12 months before the date of signing of the legal agreement.

IV. DUE DILIGENCE

A. Technical

30. The PIU has conducted technical due diligence, including of the site condition, geotechnical surveys, pavement and drainage design, safety and security buffer zone establishment, and cost estimates to accommodate ongoing operation of Fokker 100 and 70 and Dash 8-300/400 aircrafts to comply with CASA and ICAO safety and security standards.

B. Economic and Financial

31. All subprojects exceeded the benchmark 12% economic internal rate of return (EIRR) (results were 12.4% to 32.4%, with an overall project EIRR of 16.5%). Sensitivity tests were carried out varying the critical assumptions, and most subprojects reached or exceeded the 12% benchmark. The four sensitivity test cases examined were: (i) all costs increase by 20%; (ii) benefits are reduced by 20%; (iii) costs increase by 20% and the benefits are reduced by 20%; and (iv) the construction period lengthens by 1 year. This analysis indicates that the project's economic viability would remain satisfactory under most adverse scenarios, and that to reach the EIRR cutoff of 12% would require one of the following: (i) a cost increase of 37%; (ii) a decrease in benefits of 27%; (iii) a 15.7% cost increase and a 15.7% benefit decrease; or (iv) a 2.5 year delay in benefits. The Gurney and Kavieng airport subprojects both fell below the 12% EIRR threshold under all sensitivity tests.

32. The project and all individual subprojects have positive financial internal rates of return (FIRRs), but below the weighted average cost of capital (WACC). The FIRR for the consolidated CADIP tranche 3 subprojects is 2.7%. Although the FIRR does not meet the WACC for the selected airports, it is recommended that the project proceed because of the existing safety risks and the potential economic benefits of the proposed investment.¹¹ The economic and financial assessments are in Appendix 6.

¹⁰ <http://www.adb.org/projects/documents/search/country/png>

¹¹ Schedule IV of the framework financing agreement requires subprojects have a minimum EIRR of 12%.

C. Governance

33. **Financial management:** NAC was incorporated under the *Companies Act 1997* with operational and financial autonomy delegated under the NAC Company Constitution, subject to a corporate NAC Board. The financial management assessment (Supplementary Appendix B) was conducted in February 2016 in accordance with ADB guideline.¹² The assessment identified the main project financial management risks to include: (i) weak accounting and reporting capacity; and (ii) weak internal control, budgeting and reporting mechanisms. It also highlighted the audit of NAC accounts (pending since 2012) as a risk. These risks were assessed to be substantial, and a robust financial management action plan has therefore been prepared, and agreement reached with NAC regarding its implementation including the requirement to provide entity audited financial statements prior to disbursements under Tranche 3. To supervise action plan activities, the international financial management specialist hired under tranche 2 will be retained for tranche 3 for the implementation of mitigating measures. NAC has committed to improve its financial management by tightening financial control, improving reporting, and reducing manual processes to achieve greater efficiencies and revenues.

34. The project financial accounts for FY2010–FY2013 were audited by the PNG Auditor General’s Office, while the FY2014–FY2015 financial accounts were audited by an independent audit firm and submitted to ADB on time for 2014, and with 3 months delay for FY2015.

35. **Procurement:** A procurement capacity assessment of the PIU was conducted, and the procurement risk assessed as low, mainly because of (i) the capacity developed and experience acquired on ADB procurement and procedures under tranches 1 and 2 and, (ii) reduced political influence because of the PIU’s independence from the public procurement system¹³. The PIU also shown significant improvement in handling procurements under tranche 2. The procurement specialist hired under tranche 2 is assisting PIU with the procurements of tranche 3. The procurement plan for tranche 3 is attached as Appendix 8.

36. **Anticorruption:** ADB’s Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and NAC. The specific policy requirements and supplementary measures are described in the updated FAM (Appendix 4). Integrity due diligence on NAC was conducted in accordance with the Integrity Due Diligence Guidelines for Sovereign Operations. Due diligence found no apparent significant or potentially significant integrity issues.

D. Poverty, Social, and Gender Dimensions Technical

37. A majority of the country’s population, especially the traveling public using airports, will benefit from improved transport safety, diverse economic and enhanced business opportunities. In addition, people in the project areas are expected to benefit from job opportunities during construction and from the opportunity to sell goods in newly constructed airport market facilities. Specific poverty and social design features of the project include: (i) priority given to local employment of men and women in both skilled and unskilled jobs for airport upgrades and maintenance; (ii) construction of markets to allow both men and women to generate additional income; and (iii) provision of an HIV/AIDS awareness and prevention program for construction workers and neighboring communities. Education and health issues will not be directly

¹² ADB. 2005. *Financial Management and Analysis of Projects*. Manila; ADB. 2009. *Financial Due Diligence: a Methodology Note*. Manila. ADB; and ADB. 2015. *Financial Management Assessment. Financial Management Technical Guidance Note*. Manila.

¹³ NAC board has authority to approve contracts

addressed by the project but the quality of and access to these services are expected to be enhanced.

38. **Gender.** Tranche 3 is categorized as effective gender mainstreaming. A gender action plan (GAP), attached as Appendix 10, has been prepared to ensure women benefit equally from access to airport market facilities built under the project, training and capacity building in airport operations, and through active involvement in potential employment during improvement and maintenance of airports. NAC, through the national social safeguards officer, will monitor GAP implementation. GAP implementation under tranches 1 and 2 was satisfactory, with regular reporting and monitoring by the PIU. The challenge of working with the contractors in meeting gender targets was resolved through monthly onsite meetings and quarterly performance audits by the PIU. The involvement of women's groups (in addition to that of individual women) during consultations and meetings helped overcome cultural barriers that limit women's visibility in public events.

E. Safeguards

39. Impacts on the environment, involuntary resettlement, and indigenous peoples were assessed in accordance with the ADB Safeguard Policy Statement (2009). Safeguard reports are attached as Appendix 9.

40. **Environment.** Tranche 3 is classified as category B for the environment. Proposed airport improvements will not result in significant adverse environmental impacts. All potential environmental impacts can be adequately mitigated and managed, and will be monitored in accordance with the environmental assessment and review framework prepared for the investment program. An initial environmental examination, incorporating an environmental management and monitoring plan, has been prepared for each subproject site.

41. **Land acquisition and involuntary resettlement.** Tranche 3 is classified as category B for resettlement impacts. Additional land will be required for runway extensions at three sites; two sites involve customary-owned lands and the third state-owned land. The expected impacts include physical displacement of nine households, with the loss of crops and trees that constitute less than 10% of the productive assets of the affected persons. Compensation will be in accordance with the approved resettlement plans, which will be updated to reflect the full compensation rate to affected persons based on existing market prices at the time of payment; and to ascertain the number of affected persons at Buka airport, following a detailed measurement survey. A due diligence report was prepared to confirm other sites have no anticipated impacts. Consultations were undertaken with the affected persons and key stakeholders (including disclosure of the resettlement plans), and will be further consulted during implementation. An international social safeguards specialist will work closely with the national safeguards officer to develop and manage social safeguard requirements of the project.

42. **Indigenous peoples.** Tranche 3 is classified as category C for indigenous peoples in accordance with the Safeguard Policy Statement. It is expected to have no adverse impacts on distinct or vulnerable ethnic or tribal groups. All subprojects will be implemented in a culturally appropriate and participatory manner.

F. Risks and Mitigating Measures

43. Major risks and mitigating measures are summarized in Table 4 (the updated Risk Assessment and Risk Management Plan is in Appendix 12). Overall risk is assessed as Medium.

Table 4: Summary of Risks and Mitigating Measures

Risk Description	Risk	Mitigation Measures or Risk Management Plan
Financial management: Weak internal project controls. Weak capacity of NAC in accounting, reporting & internal controls. Non-submission of EAFS	Medium	Project international FMS will be retained in tranche 3 to complete resolution of project audit issues. FMS will strengthen capacity through regular training of PIU staff. ADB will closely monitor actions set out and agreed in FMAP Ongoing audit will be closely monitored to ensure compliance by Dec 2016. Disbursements are linked with the submission of EAFS
Sustainable O&M Long-term maintenance contracts not awarded Lack of annual increase in aeronautical tariff	Medium	Airports management system to be operational by June 2017 Consultant will be hired to design long-term performance-based maintenance contracts for NAC airports. Annual CPI adjustment of aeronautical charges in Jan 2017 Review aeronautical tariff by Dec 2017
Lack of Counterpart Financing	Medium	ADB TA supporting PFM will strengthen government capacity for prudent fiscal management. ADB to continue close dialogue with the government for timely release of counterpart funds.
MFF Completion and Procurement: Implementation delays may affect MFF completion timelines	Medium	Progress to be closely monitored and tracked against milestones. Implementation issues to be proactively identified with mitigation against execution risks to achieve tranche 3 outputs Two major contracts to be awarded before loan effectiveness
Overall	Medium	

ADB = Asian Development Bank, CPI = Consumer Price Index, EAFS = Entity Audit Financial Statements, FMAP = Financial Management Action Plan, FMS = Financial Management Specialist, MFF = Multitranches Financing Facility, NAC = National Airports Cooperation, O&M = Operation and Maintenance, PFM = Public Financial Management, PIU = Project Implementation Unit, TA = Technical Assistance.

Source: Asian Development Bank.

G. Risk Categorization

44. Tranche 3 is categorized as “complex”, mainly because the loan amount exceeds \$200 million. With respect to the other risk categories: (i) ADB has recent experience with transport sector projects in PNG; (ii) the executing agency has reasonable capacity in terms of externally-financed project administration; and (iii) safeguards classifications are Category B for the environment and involuntary resettlement, and Category C for indigenous peoples.

V. ASSURANCES

45. The Government of Papua New Guinea has assured ADB that implementation of Tranche 3 shall conform to all applicable ADB policies and procedures, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the FAM and loan documents.

VI. RECOMMENDATION

46. On the basis of the approval by ADB’s Board of Directors for the provision of loans under the multitranches financing facility in an aggregate principal amount not exceeding the equivalent of \$480,000,000 to Papua New Guinea for the Civil Aviation Development Investment Program, it is recommended that the President approve the proposed tranche as described in paras. 24–25 and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements for the proposed tranche.