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Report No: PAD1324

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF 42.3 SDR MILLION

(US\$ 59.50 MILLION EQUIVALENT)

AND A PROPOSED PACIFIC REGIONAL  
INFRASTRUCTURE FACILITY GRANT

IN THE AMOUNT OF US\$0.3 MILLION

TO THE

REPUBLIC OF VANUATU

FOR A

VANUATU AVIATION INVESTMENT PROJECT

April 20, 2015

*Transport and ICT  
EAST ASIA AND PACIFIC*

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective March 5, 2015)

Currency Unit = Vanuatu Vatu  
VUV 107.38 = US\$1  
US\$1.4074 = SDR 1

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

ADS-B	Automatic Dependent Surveillance-Broadcast
ARFF	Aircraft Rescue and Fire Fighting
ATS	Air Traffic Services
AVL	Airports Vanuatu Ltd.
AWOS	Automatic Weather Observation Stations
CAAV	Civil Aviation Authority of Vanuatu
CQS	Selection Based on Consultants Qualifications
CVOR	Conventional VHF Omnidirectional Range
DA	Designated Account
DME	Distance Measuring Equipment
DVOR	Doppler VHF Omnidirectional Range
EA	Environmental Assessment
EIRR	Economic Internal Rate of Return
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FM	Financial Management
FS	Financial Statements
GDP	Gross Domestic Product
GoV	Government of Vanuatu
GRS	Grievance Redress Service
IA	Implementing Agency
IBRD	International Bank for Reconstruction and Development
ICAO	International Civil Aviation Organization
IDA	International Development Association
IFC	International Finance Corporation
IFR	Interim Financial Reports
MFEM	Ministry of Finance and Economic Management
MIPU	Ministry of Infrastructure and Public Utilities
NCB	National Competitive Bidding
PAIP	Pacific Aviation Investment Program
PASO	Pacific Aviation Safety Office
PICs	Pacific Island Countries
PICASST	Pacific Island Countries Aviation Safety and Security Treaty
PMO	Prime Minister's Office

POM	Program Operations Manual
PPA	Project Preparation Advance
PPF	Project Preparation Facility
PRIF	Pacific Regional Infrastructure Facility
PSC	Program Steering Committee
QBS	Quality Based Selection
QCBS	Quality and Cost Based Selection
RPEC	Regional Procurement Evaluation Committee
SARPs	Standards and Recommended Practices
SBD	Standard Bidding Documents
SSS	Single-Source Selection
TAL	Tonga Airports Ltd
USOAP	Universal Safety Oversight Audit Programme
TFSU	Technical and Fiduciary Services Unit
VAIP	Vanuatu Aviation Investment Project
VCSS	Voice Communication Switching System
VFR	Visiting Friends and Relatives
VLI	Bauerfield International Airport
VPMU	Vanuatu Project Management Unit
VPMU SC	Vanuatu Project Management Unit Steering Committee
VSAT	Very Small Aperture Terminal
VTDP	Vanuatu Trade Development Pte. Ltd.
VUV	Vanuatu Vatu
WB	World Bank
WTTC	World Travel and Tourism Council

Regional Vice President:	Axel van Trotsenburg
Country Director:	Franz Drees-Gross
Senior Global Practice Director:	Pierre Guislain
Practice Manager:	Michel Kerf
Task Team Leader:	Christopher R. Bennett



**VANUATU**  
**Vanuatu Aviation Investment Project (P154149)**

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**PAD DATA SHEET***Vanuatu**Vanuatu Aviation Investment Project (P154149)***PROJECT APPRAISAL DOCUMENT***EAST ASIA AND PACIFIC**0000009080*

Report No.: PAD1324

<b>Basic Information</b>			
Project ID P154149	EA Category B - Partial Assessment	Team Leader(s) Christopher R. Bennett	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ X ]		
	- Small States		
	Financial Intermediaries [ ]		
Series of Projects [ X ]			
Project Implementation Start Date 18 December 2014	Project Implementation End Date 30 June 2019		
Expected Effectiveness Date 7 August 2015	Expected Closing Date 31 December 2019		
Joint IFC Yes	Joint Level Complementary or Interdependent project requiring active coordination		
Practice Manager/Manager Michel Kerf	Senior Global Practice Director Pierre Guislain	Country Director Franz R. Drees-Gross	Regional Vice President Axel van Trotsenburg
Borrower: Republic of Vanuatu			
Responsible Agency: Ministry of Finance and Economic Management			
Contact: George Maniuri Telephone No.: +678 23032	Title: Director General Email: gmaniuri@vanuatu.gov.vu		
<b>Safeguards Deferral (from Decision Review Decision Note)</b>			
Will the review of Safeguards be deferred? [ ] Yes [ X ] No			

Project Financing Data (in USD Million)						
<input type="checkbox"/>	Loan	<input type="checkbox"/>	IDA Grant	<input type="checkbox"/>	Guarantee	
<input checked="" type="checkbox"/>	Credit	<input checked="" type="checkbox"/>	Grant	<input type="checkbox"/>	Other	
Total Project Cost:		59.80		Total Bank Financing:		59.80
Financing Gap:		0.00				
Financing Source				Amount		
BORROWER/RECIPIENT						
International Development Association (IDA)				59.50		
Pacific Regional Infrastructure Facility Trust Fund				0.30		
Total				59.80		
Expected Disbursements (in USD Million)						
Fiscal Year	2015	2016	2017	2018	2019	2020
Annual	0.50	25.00	20.00	11.00	3.00	0.00
Cumulative	0.50	25.50	45.50	56.50	59.50	59.50
Institutional Data						
<b>Practice Area (Lead)</b>						
Transport & ICT						
<b>Contributing Practice Areas</b>						
<b>Cross Cutting Areas</b>						
<input type="checkbox"/>	Climate Change					
<input checked="" type="checkbox"/>	Fragile, Conflict & Violence					
<input type="checkbox"/>	Gender					
<input type="checkbox"/>	Jobs					
<input checked="" type="checkbox"/>	Public Private Partnership					
<b>Sectors / Climate Change</b>						
Sector (Maximum 5 and total % must equal 100)						
Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %		
Transportation	Aviation	100	20			
Total		100				
<input type="checkbox"/> I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.						



<b>Themes</b>		
Theme (Maximum 5 and total % must equal 100)		
Major theme	Theme	%
Trade and integration	Trade facilitation and market access	85
Public sector governance	Administrative and civil service reform	15
Total		100
<b>Proposed Development Objective(s)</b>		
The project development objective is to improve operational safety and oversight of international air transport and associated infrastructure in Vanuatu.		
<b>Components</b>		
<b>Component Name</b>	<b>Cost (USD Millions)</b>	
Component A: International Airport Infrastructure Investments	50.77	
Component B: Aviation Sector Reform and Training	1.53	
Component C: Strengthening of Airport Operations and Management Capacity	1.14	
Component D: Emergency Reconstruction	3.88	
Component E: Project Support	2.48	
<b>Systematic Operations Risk- Rating Tool (SORT)</b>		
<b>Risk Category</b>	<b>Rating</b>	
1. Political and Governance	High	
2. Macroeconomic	Substantial	
3. Sector Strategies and Policies	High	
4. Technical Design of Project or Program	Substantial	
5. Institutional Capacity for Implementation and Sustainability	High	
6. Fiduciary	Substantial	
7. Environment and Social	Low	
8. Stakeholders	High	
9. Other		
<b>OVERALL</b>	High	
<b>Compliance</b>		
<b>Policy</b>		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [ x ]

Does the project require any waivers of Bank policies?	Yes [ ]	No [ x ]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [ x ]
Does the project meet the Regional criteria for readiness for implementation?	Yes [ x ]	No [ ]
<b>Safeguard Policies Triggered by the Project</b>		
	<b>Yes</b>	<b>No</b>
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04		X
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X
Involuntary Resettlement OP/BP 4.12	X	
Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X
<b>Legal Covenants</b>		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
VPMU	X	
<b>Description of Covenant</b>		
The VPMU shall be maintained throughout the Project implementation period with adequate resources and competent and qualified staff in adequate numbers required for the Project.		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Program Steering Committee	X	
<b>Description of Covenant</b>		
The Recipient shall nominate the chairman of the VPMU Steering Committee (or their designated representative) as its member to the Program Steering Committee.		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Regional Procurement Evaluation Committee	X	
<b>Description of Covenant</b>		
The Recipient shall, in collaboration with the other Program Countries, ensure that the Regional Procurement Evaluation Committee is maintained throughout the Project implementation period and comprised of representatives of the Program Countries, TAL (through TFSU) and PASO.		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Safety and Security Levy	X	
The Recipient shall take all measures required on its part to ensure that AVL shall, from not later than July 1, 2016, and thereafter throughout the Project implementation period, collect from departing		

international passengers a levy in a minimum amount equivalent to five Australian Dollars (AU\$5) to recover aviation safety and security expenditures incurred by the Recipient.

**Conditions**

Source Of Fund	Name	Type
IDA	Project Implementation Agreement	Effectiveness

**Description of Condition**

The Project Implementation Agreement has been executed on behalf of the Recipient and AVL, in form and substance acceptable to the Association.

Source Of Fund	Name	Type
IDA	Service Agreement	

The Service Agreement has been executed on behalf of the Recipient, AVL and Tonga Airports Limited, in form and substance acceptable to the Association.

**Team Composition**

**Bank Staff**

Name	Role	Title	Unit
Christopher R. Bennett	Team Leader (ADM Responsible)	Lead Transport Specialist	GTIDR
Christopher De Serio	Co-Task Team Leader	Transport Specialist	GTIDR
Charles E. Schlumberger	Aviation Specialist	Lead Air Transport Specialist	GTIDR
Cristiano Costa e Silva Nunes	Procurement Specialist	Senior Procurement Specialist	GGODR
David Bruce Whitehead	Financial Management Specialist	Financial Management Specialist	GGODR
Maya Port	Counsel	ET Consultant	LEGES
Marjorie Mpundu	Counsel	Senior Counsel	LEGES
Oliver Whalley	Team Member	Project Engineer	GTIDR
Nora Weisskopf	Team Member	Air Transport	GTIDR
Shruti Vijayakumar	Team Member	Air Transport	GTIDR
Shruti Pandya	Administrative Support	ET Temporary	EACNF
Chanin Manopiniwes	Economist	Infrastructure Economist	GTIDR
Julie Babinard	Transport and Gender	Senior Transport Specialist	GTIDR

Ross James Butler	Safeguards	E T Consultant	GSURR		
Nicholas John Valentine	Safeguards	Consultant	GSURR		
Anil Somani	Environmental Specialist	Consultant	GENDR		
<b>Extended Team</b>					
<b>Name</b>		<b>Title</b>	<b>Office Phone</b>	<b>Location</b>	
<b>Locations</b>					
<b>Country</b>	<b>First Administrative Division</b>	<b>Location</b>	<b>Planned</b>	<b>Actual</b>	<b>Comments</b>
Vanuatu	Null	Bauerfield International Airport	x	x	
Vanuatu	Null	Pekoa Airport	x	x	
Vanuatu	Null	Whitegrass Airport	x	x	

## **I. STRATEGIC CONTEXT**

### **A. Country Context**

1. The Republic of Vanuatu is a small nation located in the South Pacific about 2,000 km to the northeast of Australia. Comprised of about 80 islands, the country's land area is some 12,200 km<sup>2</sup>. With an almost entirely Melanesian population of about 266,000, it is one of the more populated Pacific Island Countries (PICs). Efate Island is the location of the capital Port Vila—the gateway for most visitors to Vanuatu.

2. Vanuatu's per capita gross domestic product (GDP) in 2013 was US\$3,302. The country's service and agricultural sectors are major contributors to Vanuatu's GDP, making up 67.9 percent and 22.4 percent, respectively. An estimated 80 percent of the population is engaged in agricultural activities that range from subsistence farming to smallholder farming of coconuts and other cash crops. Copra, cocoa, kava and beef account for more than 60 percent of Vanuatu's total exports by value.

3. Vanuatu has been hit hard by repeated natural disasters, which take a heavy toll on communities affected. For example, the recent devastation caused by Cyclone Pam in March 2015—the full extent of which is not yet known—has included reported deaths, widespread displacement of communities, destruction of houses and buildings, as well as damage to Bauerfield International Airport, roads and wharves, communications systems, and other critical infrastructure.

4. Vanuatu has relatively low levels of material deprivation and income inequality. In 2010, an estimated 12.4 percent of people in Vanuatu suffered from material deprivation, otherwise known as basic needs poverty. This is relatively low by regional standards, with most of the Pacific Island and Melanesian cultural group countries experiencing higher levels of material deprivation. At 35.1 percent, the Gini coefficient, a measure of income inequality, is also modest. However, significant disparities exist within Vanuatu with the highest rates of poverty in urban and peri-urban areas.

5. While extreme poverty and hunger are rare in Vanuatu, much of the population lacks access to basic services. Many Ni-Vanuatu<sup>1</sup> are also vulnerable to natural and economic shocks. Limited sources of cash livelihoods mean that a small number of cash crops are relied upon to provide much-needed cash, but the prices of these crops depend on the traded prices on international markets, and are highly volatile. Transportation and freight costs are seen as a barrier to business growth. Transportation from outlying islands to Port Vila is costly, and rising petrol prices make getting goods to market expensive. Urban populations in Vanuatu are dependent on imports of basic foodstuff and oil, and spikes in the prices of these commodities in recent years have pushed more people into poverty.

6. Tourism and travel make a significant contribution to Vanuatu's economy. The World Travel and Tourism Council (WTTC) estimated the direct contribution at US\$184 million in 2014 (which is almost a quarter of total GDP) with expected 4.3 percent annual growth until 2024. The total contribution of tourism is estimated to be US\$513 million in 2014 with expected 3.4 percent annual growth for the next 10 years. Tourist arrivals have been steadily increasing, with around 330,000 visitors in 2013. A quarter of these tourists arrive by air via Bauerfield International Airport, the remainder by cruise ship. In 2013, tourism and travel

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<sup>1</sup> Ni-Vanuatu is a demonym used to refer to all Melanesian ethnicities originating in Vanuatu

services directly engaged some 12,500 workers representing around 18.2 percent of total employment. The direct contribution of travel and tourism to GDP is expected to grow to 25 percent of employment by 2024. Any interruption to tourism would therefore have an impact on poverty, particularly in Port Vila where the poverty rate is 50 percent higher than the national average, and where one in three poor people in Vanuatu live.

## **B. Situations of Urgent Need of Assistance or Capacity Constraints**

7. The proposed project qualifies for processing under paragraph 12 of OP. 10.00 as per the World Bank's guidelines for "Fragility, Capacity Constraints, Conflict, and Emergency" due to '*Capacity constraints because of fragility or specific vulnerabilities (including for small states)*'. Capacity and funding constraints for maintenance and operation of Vanuatu's key international air transport gateway, Bauerfield International Airport, resulted in highly compromised infrastructure. As a result, Vanuatu now faces the prospect of a cessation of international jet operations due to the runway pavement condition<sup>2</sup>. Cyclone Pam caused further destruction and exacerbated the need for urgent repairs. Any interruption of jet operations at Bauerfield International Airport would have a major detrimental impact on tourism and, given the importance of tourism to the economy, the economic wellbeing of Vanuatu. As the Government of Vanuatu (GoV) lacks the human and financial resources to address this challenge in a timely and cost-effective manner, it has requested the assistance of IDA.

## **C. Sectoral and Institutional Context**

8. Almost all PICs suffer from inadequate airport and freight handling facilities. Many of the region's airfield lighting and navigation systems date back to the 1960-70s and are in need of replacement and upgrading. The limited length of the runways at a number of PIC airports hampers transportation of air freight. Additionally, pavement strength and strip widths limit the weight-load and size of aircraft at many airports.

9. The specialized nature of aviation places a high burden on small countries with limited human resources. To help address the shortcomings of the policy and regulatory environment across the Pacific region, the Pacific Aviation Safety Office (PASO)<sup>3</sup> was established in 2004 through the Pacific Islands Civil Aviation Safety and Security Treaty (PIASST) with support from an Asian Development Bank (ADB) regional loan. Signatories to PICASST have made progress, in varying degrees, towards a regional harmonization and adoption of the New Zealand civil aviation regulations. Hosted in Port Vila by the Government of Vanuatu, PASO's role is to provide aviation safety and security audits and oversight recommendations, and other advisory services to its Member States. In 2014, regional IDA funding was also committed to support PASO<sup>4</sup> with a series of institutional reforms to improve its governance and accountability, technical effectiveness, and financial sustainability.

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<sup>2</sup> The runway condition is still adequate for propeller driven aircraft and so does not threaten domestic travel, although any interruption of international jet travel would reduce demand for domestic travel.

<sup>3</sup> PASO has 10 member countries (The Cook Islands, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu), and three Associate member countries (Australia, the Fiji Islands, and New Zealand). PASO's core responsibilities are to provide oversight and advice on (i) aerodrome security and safety, (ii) flight operations, (iii) airworthiness of aircraft, and, (iv) personnel licensing.

<sup>4</sup> The PASO Reform Project (P145057). IDA Grant H883.

10. Due to the poor safety and security situation, international airline operators servicing the PIC markets are incurring considerable risk, and in the event of an accident may be found negligent for operating international flights to/from airports with significant safety and security issues. In some cases, flights have been suspended causing significant economic losses and less easily quantifiable political and social costs<sup>5</sup>. Failure to address these issues will likely lead to further instances of curtailment or cessation of international aircraft operations, particularly those using jets, severely impacting the affected countries. The danger of international long-distance flights ceasing due to the state of physical infrastructure or shortcomings in the policy and regulatory environment is very real for several PIC airports in the near to medium term.

11. Aviation is a critical pillar in Vanuatu's economic and social development for the following key reasons:

- Tourists, as well as the so called VFR (visiting friends and relatives) market segment, rely on air transport to access the country;
- Air connectivity enables effective regional integration and trade links and facilitates access to education and medical services;
- Vanuatu's geography, being spread across many islands, and its distance from key export markets make efficient and safe air services essential; and,
- Vanuatu's remoteness, limited size, coastal settlement patterns and susceptibility to a host of natural disasters make aviation critical for effective disaster risk management, particularly in the delivery of relief aid. Air transport can effectively and efficiently bring in humanitarian cargo and aid workers to cut-off communities. Aircraft and helicopters also have the advantage of being able to survey large areas, scan affected zones for victims and assess damage on the ground. The importance of this was shown in March 2015 after Cyclone Pam devastated Vanuatu.

12. Airports Vanuatu Ltd. (AVL), a State Owned Enterprise, is responsible for the management and operation of Vanuatu's three international airports (Bauerfield, Pekoia and Whitegrass). Bauerfield International Airport is the main international gateway to Vanuatu, processing some 500,000 passengers per year. A 2012 International Finance Corporation (IFC) analysis suggests that the demand could be as much as one million passengers per year by 2030.

13. In 2011 Bauerfield runway's poor pavement condition was identified as an issue that needed to be urgently addressed. To identify further critical areas of investments and to ensure the overall sustainability of airport infrastructure, it was also suggested that an Airport Master Plan for all of Vanuatu's airports be prepared. The IFC was commissioned by the GoV to identify opportunities for private sector participation in the three international airports and, in 2012, provided its recommendations in a 'Strategic Options Report' which was not implemented.

14. In July 2013 the GoV signed a concession agreement with Vanuatu Trade Development Pte. Ltd (VTDP) for the construction of a new greenfield airport on Efate. Under this

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<sup>5</sup> For example, from September 2008 to June 2010 jet services to Cassidy International Airport (CXI) in Kiribati ceased due to the state of the runway. The weekly Honolulu-CXI service by B737 was replaced by a 19-seat Gulfstream G1 turboprop of 1960s vintage. The consequence was: "the tourism industry on the island...collapsed overnight creating a massive reduction in income to the island".

concession VTDP was to undertake the necessary maintenance repairs to Bauerfield runway and keep it fully operational until the new airport was completed. The concession was cancelled in mid-2014 before any repairs had been made to the Bauerfield runway, although testing and design of the repairs had been started.

15. By early 2015 the condition of the Bauerfield runway had significantly deteriorated. Approximately 600 m of the runway requires full reconstruction so as to restore the bearing capacity for jet aircraft. The temporary patching is failing with potential for foreign object damages to aircraft. Some airlines have reportedly modified their take off procedures so as to try and avoid the worst areas of the pavements. After Cyclone Pam 100 m of the runway was closed to traffic until temporary repairs, funded by IDA through a Project Preparation Advance (PPA), could be made. Clearly the repair of Bauerfield has become critical to ensure the continuity of operations.

#### **D. Higher Level Objectives to which the Project Contributes**

16. Providing safe and secure domestic and international air transport operations is a priority consistent with GoV's Priorities and Action Agenda 2006-2015, as well as the Bank's last Regional Engagement Framework for Pacific Islands (2005-2009). It also reflects the goals of the Vanuatu Strategic Tourism Action Plan 2014-2018 by the Ministry of Tourism, Industry, Commerce and Ni-Vanuatu Business.

17. Growth in tourism and remittances is expected to play a critical role in the country's economic development. In order to enable this growth, efficient, safe and secure airport infrastructure is pivotal. Ensuring access and connectivity to global and regional markets for both business and leisure travel and strengthening the climate resilience of airport infrastructure, also aligns the project with the World Bank's twin goals of reducing poverty and boosting shared prosperity.

## **II. PROJECT DEVELOPMENT OBJECTIVES**

### **A. PDO**

18. The project development objective is to improve the operational safety and oversight of international air transport and associated infrastructure in Vanuatu.

### **B. Project Beneficiaries**

19. The primary beneficiaries of the project are air travelers throughout the PICs including tourists, VFRs, public administration and business travelers, seafarers and seasonal agricultural workers, and recipients of education, training and specialized health services—any interruption to jet air services would seriously impact on these travelers. Secondary beneficiaries include the providers of food, accommodation and services to tourists. For Pekoa and Whitegrass international airports, the investments will improve safety and operations for travelers to those airports. Whitegrass plays an important role as an alternate airport for Bauerfield, so that in the event of an emergency, aircraft would divert there. It is thus essential that it be properly equipped to play this role.



20. As the primary international gateway to the country, the rehabilitation of Bauerfield International Airport's runway will benefit all residents of Vanuatu who, when an event such as Cyclone Pam occurs, must depend on disaster and emergency relief operations sourced from afar.

### C. PDO Level Results Indicators

21. Project outcomes will be monitored through four indicators: (i) Regulatory certification of safety and security at Bauerfield International Airport; (ii) State requirements for safety measured by Universal Safety Oversight Audit Programme (USOAP) reaches global ICAO average; (iii) modernization of air traffic management through installation of key equipment; and, (iv) implementation of a regional safety and security levy for departing international passengers.

## III. PROJECT DESCRIPTION

### A. Project Components

22. Since 2011, IDA, along with other development partners, has supported a regional Pacific Aviation Investment Program (PAIP). The Vanuatu Aviation Investment Project (VAIP) represents the third phase of the PAIP Series of Projects (see Section III.C, below). As in the other PAIP countries, VAIP will invest in key international aviation infrastructure, navigational and communication equipment in international airports<sup>6</sup>. In addition it will finance the development of an Airport Master Plan and an Aviation Sector Strategy as well as targeted technical assistance and training to identify and support the long-term needs of the sector.

23. **Component A: International Airport Infrastructure Investments (approx. US\$ 50.77 million – including contingencies and taxes).** The component will invest in international aviation infrastructure to meet and maintain minimum ICAO safety and security standards. The focus is on international airports, including: (i) rehabilitation and/or resurfacing of airport runway, apron and taxiway pavements at Bauerfield International Airport; (ii) extension of the apron area at Bauerfield International Airport; (iii) construction of new taxiways and widening of the existing taxiway at Bauerfield International Airport; (iv) upgrading/installation of airport runway lighting and cabling at Bauerfield, Pekoa and Whitegrass International Airports, and approach lighting at Bauerfield International Airport; (v) construction of a new domestic terminal, and demolition of the existing domestic terminal, at Bauerfield International Airport; (vi) provision of air traffic control equipment at Bauerfield and Pekoa International Airports; (vii) provision and installation of aviation navigation aids; (viii) provision and installation of weather monitoring equipment at Bauerfield and Whitegrass International Airports; (ix) upgrading of communications equipment and systems; (x) provision and installation of 'Very Small Aperture Terminal' (VSAT) communications systems at Bauerfield, Pekoa, and Whitegrass International Airports; (xi) provision of equipment for improved power supply for Bauerfield and Whitegrass International Airports; (xii) provision and/or upgrading of fire safety equipment, including fire tender vehicles, and a fire tender shelter at Bauerfield and Whitegrass International Airports; (xiii) provision of safety and

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<sup>6</sup> Approximately 89% of the infrastructure investment is in Bauerfield International Airport. The 7% for Pekoa and 4% for Whitegrass International Airports are for key safety and security related investments. Annex 3 gives further details.

security equipment, including x-ray machines for passenger baggage and cargo screening, at Bauerfield, Peko and Whitegrass International Airports; and, (xiv) provision of design and supervision consulting services required for implementation of the infrastructure investments.

24. **Component B: Aviation Sector Reform and Training (approx. US\$1.53 million – including contingencies and taxes).** This component will help strengthen the Civil Aviation Authority of Vanuatu (CAAV), Ministry of Infrastructure and Public Utilities (MIPU) and other line ministries' technical capacity through targeted technical assistance to strengthen institutional capacity and dedicated training. Specific activities include: (i) development of an Aviation Sector Strategy; (ii) provision of advisory services to assist the CAAV to: (a) review and update Vanuatu's legislative framework applicable to the aviation sector; (b) address national and international regulatory requirements for the aviation sector; and (c) implement the Aviation Sector Strategy; (iii) provision of advisory services to assist MIPU with its management and oversight of Vanuatu's aviation sector; and, (iv) training for capacity-building.

25. A Pacific Regional Infrastructure Facility (PRIF) grant of US\$0.3 m will provide funding to CAAV (which remains a department within MIPU) for safety and security audit, oversight and advisory services provided by PASO in accordance with PICASST. The audit and oversight guidance and technical advisory services are consistent with the Service Level Agreement in place between PASO and GoV and associated agreed annual work plans and service requests. The grant provides interim funding until such time that the Safety and Security Levy revenues provide a sustainable financing mechanism for payment of PASO oversight services.

26. **Component C: Strengthening Airport Operations and Management Capacity (approx. US\$1.14 million – including contingencies and taxes).** This component will strengthen AVL's airport operations and management capacity through: (i) development of an Airport Master Plan; (ii) provision of technical assistance to improve the planning, financial viability, efficiency, safety and security of airport operations; and, (iii) training on aviation policy, operations and management.

27. **Component D: Emergency Reconstruction (approx. US\$3.88 million – including contingencies and taxes).** During project preparation Cyclone Pam devastated Vanuatu, including damaging all three international airports. Damage assessments are still underway. This component is to provide support to the GoV with emergency reconstruction activities (yet to be identified) in the form of goods and works<sup>7</sup>.

28. **Component E: Project Support (approx. US\$2.48 million – including contingencies and taxes).** This component covers: (i) project management, advisory and administrative support for the Vanuatu Project Management Unit (VPMU) and AVL; (ii) costs for the support services provided to the VPMU and AVL by the PAIP Technical and Fiduciary Services Unit (TFSU); (iii) incremental operating costs of the VPMU and TFSU; (iv) VSAT subscription costs; and, (v) project financial audits.

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<sup>7</sup> The post-disaster needs assessment (PDNA) after Cyclone Pam was ongoing at the time that the VAIP project was finalized. This PDNA will identify the needs for sectors outside of aviation, and also other long-term activities to support Vanuatu's disaster preparedness. These issues will be addressed by other projects with VAIP focusing only on activities directly related to the aviation sector.

## B. Project Financing

29. The lending instrument used for this project is Investment Project Financing.

### Project Cost and Financing

30. The total estimated project cost is US\$59.80 million, with US\$59.50 million financed by an IDA Credit<sup>8</sup> and US\$0.3 million by a grant from the Government of Australia through PRIF. The US\$59.50 million Credit comprises a US\$5.86 million contribution from Vanuatu's National IDA allocation, supplemented by an additional US\$53.64 million of Regional IDA.

Project Components	IDA Financing (US\$ m)	PRIF Financing (US\$ m)	Total Financing (US\$ m)
A - Aviation Infrastructure Investments	\$44.15		\$44.15
B - Aviation Sector Reform and Training	\$1.03	0.30	\$1.33
C - Strengthening Airport Operations & Management Capacity	\$0.99		\$0.99
D – Emergency Reconstruction	\$3.37		\$3.37
E - Project Support	\$2.16		\$2.16
Taxes	\$7.80		\$7.80
<b>Total Financing Required</b>	<b>\$59.50</b>	<b>\$0.30</b>	<b>\$59.80</b>

31. **Project Preparation Advance and Retroactive Financing:** Through the Bank's Project Preparation Facility (PPF), a Project Preparation Advance (PPA) of US\$1 million was mobilized in early 2015 to support emergency activities at Bauerfield International Airport. Activities financed under the PPA include: (i) pavement deflection testing for the runway and apron areas; (ii) pavement core testing for runway and apron areas; (iii) technical evaluation of the airport's fire tenders including preparation of the bid document for suggested repairs, refurbishment or replacement; (iv) consultation, finalization and public disclosure of project safeguard instruments; (v) runway and apron rehabilitation design and preparation of bid documents as well as provision for bid support; (vi) procurement, financial management and project coordination support provided by the TFSU; and (vii) technical assistance for a study to assess the prioritization of airport investments. In the event that emergency civil works are required before the civil works contractor mobilizes to start the Bauerfield runway rehabilitation, these would be funded through the PPA—as would any critical navigation aids, rescue fire services, and security equipment.

32. The GoV has also requested retroactive financing of up to US\$10 million from the total project cost of US\$ 59.80 million to cover the costs of TFSU support, consulting services, as well the procurement of goods and civil works to ensure safe and secure airport operations in

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<sup>8</sup> The National IDA consists of SDR 1.24 (US\$1.86 million), which is 20 percent of Vanuatu's FY15 allocation, for leveraging the Regional IDA, and a further US\$4 million to fund the the costs for the moving of the domestic terminal.

the period from December 15, 2014 until the effectiveness of the Financing Agreement. This is in addition to the US\$0.2 million of retroactive financing available from the same date under the PPA agreement.

### **C. Series of Project Objective and Phases**

33. VAIP represents the third phase of the PAIP Series of Projects. The program, originally financed through an Adaptable Program Loan, was approved in December 2011. Prior phases of the program include Kiribati, Tonga and Tuvalu (Phase 1), Samoa (Phase 2), as well as the reform of PASO in Vanuatu. The VAIP's focus on physical aerodrome improvements and institutional strengthening activities is in line with the overall objective of the regional program.

34. Vanuatu's participation in PAIP was identified in the original program design, and during preparation the GoV agreed to meet the PAIP program criteria:

- *Agreement to implement PASO's recommended minimum regular scheduled safety and security oversight program for the country.* A Service Level Agreement between PASO<sup>9</sup> and GoV has been in place since 2007 and provides the main instrument for defining and executing an agreed annual work program.
- *Agreement to implement the separation of the policy/regulatory functions from airport operations.* Vanuatu already has implemented the effective separation of operational and regulatory/policy functions through the creation of AVL.
- *Agreement to implement at least an AU\$5 equivalent departing international passenger 'safety and security levy'.* This levy is being collected, or in the process of being collected, by all PAIP countries. The GoV have agreed to start collecting this levy by July 1, 2016 to fund the costs of safety and security oversight through PASO and CAAV, as well as other safety and security related activities within CAAV and AVL. A disbursement framework setting out how the proceeds of this levy will be collected, disbursed and audited, and the eligible activities to be financed by the levy, will be prepared by CAAV and AVL (in consultation with the TFSU and satisfactory to IDA) and adopted by March 31, 2016.

### **D. Lessons Learned and Reflected in the Project Design**

35. The Series of Projects structure enables the replication and scaling up of a regional program across countries, within a common objective and framework and built upon the lessons learned from previous phases. Lessons learned specifically applicable to this program include:

- *There is high variability in the cost of runway rehabilitations.* Analyses of the priced bills of quantities for runway procurements in Kiribati, Tonga and Tuvalu showed that contractors did not adopt a consistent approach towards pricing their bids. The estimate for the VAIP runway rehabilitation cost was prepared based on a detailed analysis of bid prices from all three countries so as to obtain the most

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<sup>9</sup> Through its own staff and a regional pool of aviation specialists, PASO's core responsibilities are to provide oversight and advice to Vanuatu in meeting international safety regulatory compliance on (i) aerodrome security and safety, (ii) flight operations, (iii) airworthiness of aircraft, and, (iv) personnel licensing.

accurate possible estimate.

- *There is a commonality towards environmental issues.* When dealing with runway rehabilitation and repairs the majority of the issues encountered are similar so it was possible to draw upon these in preparing the Environmental and Social Management Plan (ESMP) for VAIP.
- *Introduction of regional communications, navigation and surveillance systems creates regional spillovers:* The introduction of a regional VSAT ground-to-ground communications network has been shown to be beneficial individually and collectively, as the introduction in some countries is expected to encourage others to do the same. The standardization of equipment across the region provides the potential for economies of scale in the purchase, installation and maintenance of equipment, thereby facilitating the sustainability of assets.
- *Funding for the TFSU:* During the first two phases of the program, cost estimations for TFSU support, particularly in procurement, were underestimated. The approach for financing the TFSU was to apportion the overall TFSU costs between the participating states on the basis of the relative size of each country's project. Since the VAIP is an emergency project, with the majority of the investments being made in the first year of implementation, the VAIP TFSU costs were established based on an analysis of the support needs and an agreed monthly rate to provide this support. The TFSU charges will be reviewed on an annual basis. The VAIP payments will be used to offset the TFSU costs attributable to VAIP, with the remaining costs apportioned among the other PAIP countries in accordance with their existing arrangement.

## **IV. IMPLEMENTATION**

### **A. Institutional and Implementation Arrangements**

36. The executing agency will be the Ministry of Finance and Economic Management (MFEM) and MIPU will be the implementing agency. AVL and other line ministries, including CAAV and other line ministries will also be involved in supporting project implementation, providing inputs and performing roles within their respective mandates. A Project Implementation Agreement will be entered into between the GoV and AVL to set out their respective roles and responsibilities regarding Project implementation.

37. The VPMU of the Prime Minister's Office (PMO) will be responsible for day-to-day Project management, including technical, procurement handling and financial management, reporting, monitoring and evaluation, and ensuring environmental and social safeguards compliance in accordance with the safeguards instruments. Additional resources may be needed within the VPMU to handle the increased workload relating to the Project. The existing VPMU Steering Committee, comprised of key government stakeholders, will provide overall oversight of Project implementation and of the VPMU, and make Project policies and strategic decisions.

38. The VPMU will be supported by the PAIP TFSU based within Tonga Airports Ltd. (TAL). The TFSU will provide expertise and support services in the areas of procurement, financial management, contract management, safeguard policies, engineering and equipment specifications, monitoring, evaluation and reporting requirements. It is anticipated that most of

the demands for VAIP support will be met through existing staffing, with some additional resources in procurement potentially required. Coordination between the MIPU, VPMU, AVL and the TFSU is critical to ensure efficient Project implementation in line with program objectives. A Service Agreement, prior reviewed by and acceptable to the Bank, between the GoV, AVL, and TAL has been signed.

39. Regional implementation arrangements, established and operationalized in prior phases, will facilitate project implementation. This includes a Program Steering Committee (PSC), comprising representatives from the national steering committees of the countries currently participating in PAIP, and the VPMU. The PSC meets regularly to review and evaluate the Program implementation process. Regional procurements are reviewed by the Regional Procurement Evaluation Committee (RPEC), with a member of each country involved in the procurement represented on the committee.

## **B. Results Monitoring and Evaluation**

40. Reporting for the whole of the PAIP is being undertaken by the TFSU who will submit progress reports to IDA on behalf of the GoV, with the support of the VPMU. The VPMU will be responsible for the timely and accurate collection of the required indicator data, with support of AVL, CAAV and MIPU. In coordination with the TFSU, the VPMU will use these complete Quarterly Program and Project Reports for final review and submission by the TFSU along with the reports for the other PAIP Countries. The VPMU already performs this reporting function for other donor financed projects so have the capacity and mandate to do such work. Monitoring of the implementation of the PASO annual work plan is currently tracked as part of PAIP through the PASO Reform Project, which includes a results framework with a specific sub-indicator on the level of Vanuatu's conformance with their agreed PASO Annual Work Plans. The project's outcome indicators, as well as the intermediate indicators for each component are provided in the Results Framework in Annex 1.

## **C. Sustainability**

41. Lack of compliance with ICAO safety and security standards can lead to interruption or even cessation of air services. The Safety and Security Levy provides an appropriate mechanism for contributing to fiscal sustainability by providing a dedicated revenue stream to airport operators and regulators for achieving safety and security standards and recommended practices. It is already proving its value where it has been implemented.

42. Ensuring that airport infrastructure is adequately maintained is critical to prolong the life cycle of the project's investments. In order to address this, two activities are currently being undertaken under the PAIP program: (i) with PRIF funding to PAIP, through the Tonga Aviation Investment Project, a *Long-term Regional Aviation Supply and Infrastructure Sustainability Study* is considering current and projected traffic volumes in the region to analyze options for sustainable long-term finance and operations of key aviation infrastructure—principally airfield pavements, navigation aids and safety and security equipment. The study also includes the evaluation of a multi-year maintenance concession that would service all airports under the program on a regular basis; and, (ii) options for a regional airfield asset management system, which would provide tools to airport operators for monitoring the condition of their runway, apron and taxiways so as to ensure that they meet the

necessary structural and functional requirements of aircraft, is being evaluated as a regional public good.

43. The proposed Vanuatu Airport Master Plan and Aviation Sector Strategy financed under the project will ensure the sustainability and viability of long-term investments at all international airports in Vanuatu. This work will not only consider infrastructure needs, but also management models and potential for private sector participation in the sector. The International Finance Corporation (IFC) will support the IDA team and the client with this work. Technical assistance may also include support in the development of appropriate aeronautical and non-aeronautical fees to improve financial sustainability. IFC will provide close support and advice to the Bank team with regard to these two studies as they offer potential for some form of concession and enhanced private sector participation in the sector.

**V. KEY RISKS**

**A. Risk Ratings Summary Table**

<b>Risk Category</b>	<b>Rating</b>
1. Political and Governance	High
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	High
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	Substantial
7. Environment and Social	Low
8. Stakeholders	High
9. Other	
<b>OVERALL</b>	<b>High</b>

**B. Overall Risk Rating and Explanation of Key Risks**

44. The overall risk of the project is High.
- The project will start implementation in the aftermath of Cyclone Pam which has devastated Vanuatu, causing massive damage to infrastructure and services. The GoV resources will be severely stretched during the recovery and reconstruction phases after Cyclone Pam.
  - Overall, the sector does not have a history of good governance, strong regulatory oversight, or providing adequate fiscal resources for safety oversight, airport operations and management. Unless addressed, this could prevent Vanuatu from maintaining aerodrome certification or from ensuring that regulatory performance measures up to ICAO’s global averages.
  - For several years stakeholders within Vanuatu’s aviation sector have had divergent views on what should be done. This was recently shown in a concession for the development of a new airport, which would have included repairs to Bauerfield International Airport, but which was cancelled by the government.

- The AVL Board was recently replaced as were a number of key staff. There are capacity constraints in the organization.
  - This is the first Bank financed infrastructure investment project in Vanuatu since the 1990s so there is a lack of familiarity with Bank processes.
  - There is a need to get the civil works to rehabilitate the runway started as soon as possible, while ensuring that this is done to the proper technical standard and with due consideration for efficiency and cost effectiveness.
45. As shown in Annex 3, these risks have been mitigated through several measures:
- The project design sees key stakeholders addressing aspects of the project where they have particular strengths with the MFEM responsible for financial management on the project; and AVL will provide critical inputs for technical, procurement and contract management activities.
  - The VPMU Steering Committee—which includes representation of all key stakeholders in the project—will have regular meetings to identify any issues in the project and advise on how to resolve them.
  - The TFSU—which draws technical guidance from TAL, and includes management, procurement and financial specialists—will provide support to the VPMU, MIPU and AVL with the technical, fiduciary, contract management, reporting, and monitoring and evaluation aspects of the project.
  - The project includes key technical assistance activities to strengthen the CAAV, MIPU and AVL, as well as grant funding for the provision of enhanced oversight services from PASO.

## **VI. APPRAISAL SUMMARY**

### **A. Economic Analysis**

46. The economic analysis was undertaken in a similar manner to the other PAIP countries. Failure to address the runway condition at Bauerfield International Airport will result in the cessation of international air services, possibly as early as 2016. The withdrawal of air services would have a critical impact on travel and tourism, essential for Vanuatu’s economy.

47. The economic analysis covering the period of 10 years (2015-2024) assumes that if operational safety standards are not met, airlines would cease jet flights to Bauerfield International Airport as early as 2016. This means that “without the project,” 20 percent of tourism GDP is affected in 2016 as a base case. In the “with-project” case, the investment made with the project will allow jet service to run as normal. The analysis used the project’s expected disbursement schedule<sup>10</sup>, with the stream of contributions to GDP according to WTTC’s estimates.

48. The benefit of undertaking the major investments in the runway in 2015 is that: (i) a greater expenditure (due to further deterioration) does not have to be made a later date; and, (ii) no tourism and travel GDP is lost. The base-case assumes that, without the project, airlines cease services but 80 percent of tourism GDP is still retained in 2017. The difference between “with-project” and “without-project” cases yields the EIRR of 108.0 percent and the NPV of

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<sup>10</sup> This represents the total project costs, including technical assistance activities, not just those associated with the runway rehabilitation.



US\$29.9 million based on 10 percent discount rate. The table below shows the implications of varying the costs +10 percent and the benefits -10 percent on the economic return. This confirms the economic rationale for the project.

	Base Case	Benefits -10%	Costs +10%	Benefits -10% and Costs +10%
<b>EIRR (%)</b>	108.0	94.6	95.8	84.0
<b>NPV (\$m)</b>	29.9	26.5	29.5	26.0

49. **Debt Impact of Proposed Project:** Prior to Cyclone Pam, which devastated Vanuatu on March 13, 2015, the GoV embarked on a new public investment program that would have seen a major development of national infrastructure, including roads, airports and seaports. A large part of these investments were to have been financed with credits, budgeted for some US\$360 million over the next few years. Vanuatu's debt management has been prudent and in recent years the country has had low levels of debt. In the aftermath of Cyclone Pam, however, it is expected that the GoV will review its previous investment program. A forthcoming World Bank/IMF Debt Sustainability Analysis will shed more light on the short and medium term impact of the disaster. In any event, the size of VAIP in itself will not make a material difference to the country's overall debt situation.

**B. Technical**

50. Some 89 percent project investments will be made at Bauerfield International Airport, the country's main international gateway with minor investments in navigation aids and security equipment being made at Peko (7%) and Whitegrass (4%) International Airports<sup>11</sup>. Bauerfield has one asphalt runway (11/29), 2600m in length and 45m in width, designed to accommodate an Airbus 330. The condition of the runway has deteriorated considerably over the years with significant cracking and shoving of the existing pavements and evidence of water penetration through the asphalt. Damages are particularly critical at Runway 11 end. Previous surveys suggest that this portion of the runway is on alluvial materials, which have saturated the pavement structure so full rehabilitation of some 600m of runway will likely be necessary. The remainder of the runway appears structurally sound so an overlay should suffice. Pavement core and strength testing will provide a more detailed analysis of the pavement base condition to determine the appropriate mix specifications for detailed designs. The airport also lacks the parking space and taxiways to accommodate a larger number of aircraft simultaneously, which considerably restricts the airport's capacity for growth.

51. As part of the project the following key activities will also be financed:

- The installation of a new DVOR and other ground-based navigation equipment will upgrade outdated navigation aids;
- Installation of Automatic Dependent Surveillance - Broadcast (ADS-B) to improve surveillance capabilities;
- Installation of improved communications equipment including robust VHF communications;

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<sup>11</sup> Once the damage assessments from Cyclone Pam are available, funding priorities are likely to change and there will likely be some rebalancing between airports.

- Ground-to-ground VSAT communications network, will enable stable and modernized communications services critical for the operational safety of airline operations;
- Energy efficient LED runway lights for night-time operations at Bauerfield, Pekoa and Whitegrass International Airports;
- New approach lighting and domestic terminal for Bauerfield International Airport;
- Refurbishment of fire tenders at Bauerfield International Airport as well as fire safety equipment (e.g. fire jackets) for all international airports to ensure compliance with international standards for ARFF operations. Exact requirements will be based on a detailed evaluation study conducted under the project.
- An Airport Master Plan that will identify long-term investments and management options for all international airports (Bauerfield, Whitegrass and Pekoa).
- An Aviation Sector Strategy study will take stock of existing conditions in Vanuatu's aviation sector including policy, infrastructure and regulatory aspects.
- Advisory services to AVL, CAAV and MIPU to support effective oversight and operational strengthening.
- Training and targeted technical assistance for both operator and regulatory oversight.

### **C. Financial Management**

52. A Financial Management (FM) assessment of MIPU has confirmed that the accounting system for project expenditures and underlying internal controls are adequate to meet fiduciary objectives and satisfy the Bank's OP/BP 10.00. The FM system has the capacity to produce timely, relevant and reliable financial information on project activities, and will allow the Bank to monitor compliance with agreed implementation procedures and appraise progress. Monitoring and management of Credit proceeds, including oversight of the associated Designated Account (DA), preparation of Statement of Expenditures for Withdrawal Applications, exercise of financial internal controls, review of interim financial reporting, and follow up of audit findings and mission findings will be handled by the MFEM.

53. A Service Agreement between GoV, AVL and TAL to engage the TFSU, which has been supporting the PAIP Program effectively, as well as providing country specific, project-level guidance on key implementation matters, has been signed. The Service Agreement defines the functions of TFSU in financial management, procurement, contract management, reporting and other activities. Reporting arrangements will be managed in coordination with the TFSU, which has satisfactorily carried out PAIP financial management to date and has sufficient capacity to manage these aspects under the project. The TFSU, which includes a Financial Manager and two experienced project accountants, is responsible for FM monitoring and consolidated reporting of the PAIP Program. The PAIP Program Operations Manual (POM) includes the Program FM Manual.

### **D. Procurement**

54. The procurement capacity assessment highlights risks related to accountability in evaluation and approval procedures, as well as adequacy of MIPU staffing for effective oversight. VPMU will put in place a project manager with support from existing procurement

and financial management staff. If necessary, additional staff will be recruited. The use of simplified procurement procedures and templates, agreed with the Bank in January 2013 for the Pacific Region and in line with the Government's approval thresholds, will also help to mitigate procurement risks. To facilitate procurement, the MIPU will apply to the Central Tenders Board (CTB) for a waiver so that CTB review will not be required on the project.

55. MIPU will be supported by the VPMU and the TFSU. The TFSU has satisfactorily managed PAIP procurement activities to date and has sufficient capacity to manage these aspects under the project. The TFSU is responsible for procurement handling, monitoring and consolidated reporting of PAIP. The POM, updated to include implementation arrangements for VAIP, includes processes and procedures for handling procurement in accordance with World Bank policies. Annex 3 provides more details on project procurement arrangements, including an initial summary procurement plan.

### **E. Social (including Safeguards)**

56. The project triggers Environmental Assessment OP/BP 4.01 and, even though there is no anticipated land acquisition and resettlement, Involuntary Resettlement OP/BP 4.12 is also triggered in case this changes.

57. All project investment activities are to be undertaken within the existing airport precincts. The only potential impacts outside of the precincts is the sourcing of materials from quarries, and the disposal of materials that cannot be recycled or reused in the construction. Materials required for the infrastructure investments at Bauerfield International Airport will be sourced locally from quarries that are yet to be confirmed.

58. The main potential negative social impacts from the project are related to construction—noise, and dust—and these will be mitigated through the ESMP, which also includes a resettlement policy framework (RPF). During the construction phase there is the potential for minor impacts on airport concessionaires and other small businesses in the airport vicinity. These impacts would be limited to noise, dust and traffic from construction activities and will be of limited duration. Standard good practice construction management will mitigate these potential impacts to an acceptable level. All potentially affected businesses will be included in the consultation process, which commenced on March 11, 2015 and is ongoing.

59. While the majority of the project's activities are expected to be on existing land within airport precincts or on existing external premises (eg. quarries) OP 4.12 is triggered given the uncertainty around land ownership for quarries and the location of any construction camps, should they be required. An RPF is included in the ESMP (based on the PAIP ESMF) to cover any eventualities. The project is also triggering OP 4.12 since an Airport Master Plan and Aviation Sector Strategy are being developed under the project. There are potential social impacts, including land acquisition and resettlement, that may arise from the recommendations and implementation of these technical assistance activities, even though at present none are envisaged. The Terms of Reference for the studies will be reviewed by safeguard specialists to ensure they properly addresses social and environmental considerations.

60. **Consultation:** Consultation with stakeholders commenced on March 11, 2015 and is ongoing. Further public consultation was originally scheduled at the National Council of Chief's Nakamal in Port Vila. However, Cyclone Pam impacted Vanuatu on March 13 2015 creating widespread damage and disruption. Accordingly, these consultations were not able to proceed as planned and have been rescheduled to take place as soon as materially possible and

will continue take place as needed throughout the implementation of the project. This ESMP will be revised and updated as needed following further public consultations and will be re-disclosed.

61. Stakeholders will be consulted on a continuous basis during implementation (for example to announce the start of works or to advise of traffic management plans during the construction phase). This will include communities near the quarry sites and along the transport route for materials. Furthermore, neighboring communities will be made aware through the media of the procedure for registering any complaints or grievances in relation to the project. Where the airport Master Plan process has the potential to impact on communities outside the airports, these communities, with representatives of both men and women groups, will be engaged in a meaningful way in the master plan process.

62. The ESMP was disclosed in-country on March 27 2015 and at the World Bank InfoShop and on March 28, 2015. In-country disclosure (considering the post-Cyclone Pam circumstances) included provision of documents at the AVL offices together with direct discussions with airport concessionaires where possible, and posting on the VPMU web site. It was also published on the PAIP web site managed by TAL. Subsequent iterations of the ESMP will be disclosed prior to works commencing and following further public consultations with stakeholders.

63. **Gender:** Gender constraints in Vanuatu are wide-ranging and entrenched in cultural and historical factors. Vanuatu is a traditionally male dominated and largely patriarchal society. Also in terms of total population the sex ratio is 105 males to 100 females. Women have extremely low representation in Parliament and in other decision-making bodies. Traditional customary law administered by Chiefs and recognized by Vanuatu's Constitution can operate to discriminate against women. Despite ratification of the Convention Against all Forms of Discrimination against Women, a number of Vanuatu's laws continue to discriminate against women, for example in relation to matrimonial property, inheritance, and citizenship.

64. There are several opportunities where the project can have a positive impact on women. First, the upkeep of the airport facilities and continued air services will benefit tourism activities that also provide opportunities for women in Vanuatu, with significant numbers of women engaged in the tourism sector both as employees and as entrepreneurs.

65. The project also provides an opportunity to engage women as stakeholders during the consultations on the project. Since there is still a significant marginalization of women in Vanuatu, particularly from pertinent discussions and decisions on areas of social and economic development, the project will seek to promote the engagement of women during public discussions around the project, making sure that they are well represented and that their inputs and opinions are considered.

## **F. Environment (including Safeguards)**

66. The project triggers Environmental Assessment OP/BP 4.01 and assigned Category B. Project impacts are site-specific and none of them is irreversible; their mitigation is addressed in the ESMP. This ESMP will be included in the bidding documents for the civil works at Bauerfield International Airport, and serve as the basis for the contractor's ESMP, which must be submitted and cleared prior to commencing civil works.

67. The proposed activities include provision of air traffic control, and safety and security equipment (including x-ray machines for passenger baggage and cargo screening); upgrading of runway lighting and cabling, installation of weather monitoring equipment, and improvements to power supply. The ESMP focuses on works at Bauerfield International Airport, however applies to the project. The works at the other airports are similar—but do not include major civil works for the runways—so the approach for Bauerfield is expected to be applied. In the event that it does not apply—or due to Cyclone Pam other investments are required—the ESMP will be updated and redisclosed and/or additional measures will be prepared and disclosed to specifically address these other Project sites. The ESMP may also be updated based on the findings and recommendations of the Aviation Master Plan that is being prepared under the Project.

68. The detailed design will avoid or mitigate many of the potential impacts, and there are standard practices and procedures that will satisfactorily mitigate impacts during construction and airport operation. The majority of environmental impacts will occur during the construction phase, particularly with the resurfacing of the Bauerfield International Airport apron, runway and taxiway. Impacts during this phase include dust and noise, heavy traffic between the site and quarry and landfill, disposal of milled material not reused in the project, management of storm water, and the health and safety of workers and bystanders.

69. Noise, dust and vibration may be experienced by those living and working at or near the airport and the transport routes. Mitigation measures for construction impacts are addressed in the ESMP. These measures have been discussed during public consultations (and will continue to be during the ongoing consultations). During operation, runway drainage will need to be managed. The source of aggregates is presently unknown, but there are existing commercial quarries that could potentially provide appropriate materials. The ESMP undertook an analysis of alternative aggregate sources, including existing basalt and coronous quarries on Efate.

70. The proposed Airport Master Plan and Aviation Sector Strategy to be developed under the Project will cover all international airports in Vanuatu: Bauerfield, Whitegrass and Pekoa International Airports. The potential subprojects that may be identified through the master planning and strategy development process are unknown; however they may include activities with the potential for environmental and social impacts (e.g. runway lengthening, terminal expansion, runway rehabilitation etc.). The potential safeguard implications will be incorporated within the Master Plan and Sector Strategy to ensure they are considered in the development of subprojects. The Terms of Reference for the Master Plan and the Aviation Sector Strategy consultant will include a requirement to consider World Bank safeguards provisions.

71. In accordance with the conclusions and recommendations of the seventeenth replenishment of IDA resources, a screening of the proposed project for short and long term climate change and disaster risks was undertaken using the World Bank Climate and Disaster Risk Screening Tool. The key risks are those related to the volcanic activities in the region, the associated earthquake exposure, tsunamis as well as extreme precipitation and flooding. The project design incorporates resiliency measures to address extreme precipitation and flooding risks—particularly in light of Cyclone Pam. This will form part of the final engineering solutions for the airport infrastructure.

72. Institutional stakeholders in safeguards compliance are the implementing agency (MIPU), VPMU, AVL and the Department of Geology, Mines and Water (Mines and Minerals Section). Local stakeholders are the communities surrounding the airports, quarry sites and transport routes for materials and airport concessionaires. Consultation with these key stakeholders has taken place, is ongoing and will continue including during implementation of the ESMP.

### **G. World Bank Grievance Redress**

73. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## Annex 1: Results Framework and Monitoring

### Vanuatu Aviation Investment Project (P154149)

#### Results Framework

#### Project Development Objectives

##### PDO Statement

The project development objective is to improve operational safety and oversight of international air transport and associated infrastructure in Vanuatu.

**These results are at** | Project Level

#### Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values				
		YR1	YR2	YR3	YR4	End Target
Regulatory certification of safety and security at Bauerfield (VLI) maintained (Text)	VLI certified					Re-validation of certification of VLI in accordance with CAR-Part 139.
State requirements for safety measured by Universal Safety Oversight Audit Programme (USOAP) reaches global ICAO average	47.51					41.38
Modernization of air traffic management achieved (Text)	No VSAT or ADS-B			VSAT and ADS-B fully operational		VSAT and ADS-B fully operational
Regional safety and security levy for departing international passengers implemented (Text)	No levy	No levy	AU\$5 collected	AU\$5 collected	AU\$5 collected	AU\$5 collected from each departing international passenger.

## Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values				
		YR1	YR2	YR3	YR4	End Target
Navigation and safety aids in line with implementation schedule (Percentage)	0.00	0.00	50.00	100.00	100.00	100.00
Rehabilitation of VLI pavement in line with implementation schedule (Percentage)	0.00	0.00	100.00	100.00	100.00	100.00
Fire Standards at VLI Achieved (Text)	Category 6	Category 6	Category 6	Category 7	Category 7	Category 7
Airport Master Plan and Aviation Sector Strategy in line with implementation schedule (Percentage)	0.00	0.00	50.00	100.00	100.00	100.00
Successful implementation of agreed training plan (Text)	No Training Plan					Training Plan completed
Grievance registered related to delivery of project benefits by gender that are actually addressed (Percentage)	0.00	100.00	100.00	100.00	100.00	100.00
Grievances responded and/or resolved within the stipulated services standards for response times (Percentage)	0.00	75.00	75.00	75.00	75.00	75.00
Project-supported organization(s) publishing periodic reports on GRM and how issues were resolved (Yes/No)	No	Yes	Yes	Yes	Yes	Yes



## Indicator Description

### Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Regulatory certification of safety and security at Bauerfield (VLI) International Airport maintained	Although Bauerfield International Airport is currently certified, the CAAV, with the support of the PASO will undertake a detailed assessment of Bauerfield Aerodrome at the end of the project in accordance with Vanuatu Civil Aviation Rules (Part139), which conforms to both New Zealand Civil Aviation Rules 139 and applicable portions of ICAO Annex 14 (international standards for aerodrome design and operations). If compliance is achieved CAAV will re-issue certification of the aerodrome to Airports Vanuatu Limited.	Aligned with PASO oversight schedule.	CAR-Part 139 as adopted by CAAV, which conforms to applicable portions of ICAO Annex 14.	CAAV/VMPU
State requirements for safety measured by Universal Safety Oversight Audit Programme (USOAP) reaches global ICAO average	USOAP audits focus on the State's capability for providing safety oversight by assessing whether critical elements of a safety oversight system have been implemented effectively. Audit teams also determine the State's level of implementation of safety-relevant International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs), associated procedures, guidance material and practices. The audit protocol is a comprehensive checklist, covering all elements of the State's safety oversight program subject to the audit. These audit protocols are used as the primary tool for conducting the audit. The extent (in percentage) of lack of compliance is determined based on the findings of the audit. The most recent USOAP audit available was undertaken in 2006.	End of Project	ICAO Audit	CAAV/VPMU

Modernization of air traffic management achieved	The results indicator measures the completed and successful installation of Automatic Dependent Surveillance- Broadcast (ADS-B), a low-cost surveillance system, and a Very Small Aperture Terminal (VSAT) system, a dedicated communications network, neither of which is currently available.	Once	Project progress reports	AVL/CAAV/VMPU
Regional safety and security levy for departing international passengers implemented (Text)	The results indicator will measure the successful introduction, collection and expenditure accounting of the departing international passenger levy to cover costs associated with: (i) services from the PASO; (ii) maintenance of security and safety equipment; and, (iii) any expenditure to ensure effective safety oversight by the CAAV. The levy is collected as part of the ticket price and remitted to the MFEM who will disburse the funds in accordance with a framework cleared by the Bank.	Once	Project progress reports	MFEM/AVL/MIPU/VPMU

### Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Navigation and safety aids in line with implementation schedule	Supply and installation of navigation and safety aids leading to improved operational safety.	Annual through completion	Project progress reports	AVL/VPMU
Rehabilitation of VLI pavement in line with implementation schedule	Completed rehabilitation of all pavements at Bauerfield International Airport	Annual through completion	Project progress reports	AVL/VMPU
Fire Standards at VLI Achieved	Achievement of Category 7 Aircraft Rescue and Fire Fighting operations capable of handling largest aircraft serving the Bauerfield International Airport. Current Category 6 require vehicles that carry 11,800 litres of water; with discharge rate (foam/litres) of 4,000 per minute; Category 7 requires vehicles that carry 18,200 litres of water; with discharge rate (foam/litres) of 5,300 per minute	Once	Project progress reports	AVL/VMPU

Airport Master Plan and Aviation Sector Strategy in line with implementation schedule	Completion of both studies to guide long-term sustainable sector development	Annual through completion	Project progress reports	VMPU
Successful implementation of agreed training plan	Training for AVL and CAAV for capacity building.	End-of-Project	Project progress reports	CAAV/AVL/VMPU
Grievance registered related to delivery of project benefits by gender that are actually addressed	Citizen engagement indicator in accordance with the 2014 Results Framework and M&E Guidance Note. Modified to include gender.	Annual through completion	Grievance and Complaints Logging System	VPMU
Grievances responded and/or resolved within the stipulated services standards for response times	Citizen engagement indicator in accordance with the 2014 Results Framework and M&E Guidance Note.	Annual through completion	Grievance and Complaints Logging System	VPMU
Project-supported organization(s) publishing periodic reports on GRM and how issues were resolved	Citizen engagement indicator in accordance with the 2014 Results Framework and M&E Guidance Note. The project will establish a website which will display the resolution rate for grievances and time to resolve.	Continual	Web site linked to Grievance and Complaints Logging System	VPMU

## Annex 2: Detailed Project Description

### VANUATU: Vanuatu Aviation Investment Project (P154149)

1. This emergency project will focus on three main areas: (i) infrastructure investments; (ii) aviation sector reform; and, (iii) strengthening airport operations and management capacity. All three activities are critical to ensure continued air services at Vanuatu's international airports. Effective airport management and oversight will provide a basis for the future sustainable development of the whole aviation sector.

2. **Component A: International Airport Infrastructure Investments (approx. US\$ 50.77 million – including contingencies and taxes).** This component will invest in aviation infrastructure to enable Bauerfield International Airport (VLI) to meet minimum ICAO safety and security standards. The focus will be particularly on the rehabilitation of the airport's pavements, which are in critical condition and may, if not addressed promptly, result in cessation of jet flights. Some of the equipment purchases, including the installation of VSAT communications and ADS-B systems, will be procured together with other PAIP participating countries, to realize economies of scale and promote the standardization of equipment thereby reducing maintenance complexity and cost. A limited number of activities will also be financed for the two other international airports, Pekoa and Whitegrass.

3. Specific activities will include:

- a. **Rehabilitation and resurfacing of Bauerfield's pavements:** Bauerfield's runway, apron and taxiway pavements are in poor condition and need to be repaired urgently. Damages are particularly critical at the Runway 11 end, which will likely require a full rehabilitation. The remaining runway as well as the apron and taxiway will be resurfaced. All pavements will also receive new markings.
- b. **Extension of the Bauerfield apron:** The current apron space limits the type and frequency of aircraft that can be accommodated at Bauerfield International Airport. The apron space will be enlarged on eastern and western sides by an additional approximately 12,500 m<sup>2</sup>. The works will also include a turning bay expansion to cater for Code E aircraft<sup>12</sup> at each threshold with holding bay at threshold 11 to enable a narrow-body jet to be able to hold clear of the runway without disrupting operations.
- c. **Additional taxiways and widening of existing taxiway at Bauerfield:** To accommodate Code E aircraft, the existing taxiway will be widened and two additional stub taxiways at the eastern and the western extremities of the runway will be constructed.
- d. **Runway lighting and cabling:** (i) Current incandescent airfield lighting will be replaced with high intensity, energy efficient LED lighting at Bauerfield, Pekoa and Whitegrass International Airports; and, (ii) installation of approach lighting at Bauerfield International Airport;
- e. **Relocation of Bauerfield Domestic Terminal Building:** The current location of

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<sup>12</sup> Code E refers to all aircraft that have a wingspan above 52 m up to but not including 65 m and an outer main gear wheel spans of 9 m up to but not including 14 m. This includes for example the Airbus 330, 340 and 350 or the Boeing 787.

the domestic terminal at Bauerfield International Airport presents operational limitations for movements of more than one large aircraft. It also represents a potential safety risk to aircraft, in particular the larger international flights, due to its proximity to the runway. It will be moved away from the runway to address these concerns.

- f. ***Air traffic control equipment:*** This will include the provision of new Air Traffic Services (ATS) consoles for Bauerfield and Pekoia International Airports to monitor airport and air traffic operations.
- g. ***Air navigation aids:*** The project will finance a number of critical navigation aids to ensure safe operations. These will include the installation of three new Doppler VHF Omnidirectional Range<sup>13</sup> (DVOR) and Distance Measuring Equipment<sup>14</sup> (DME) for Bauerfield, Pekoia and Whitegrass International Airports. At Bauerfield International Airport this will replace the current outdated Conventional VHF Omnidirectional Range (CVOR). In addition, new localizers will be financed at Bauerfield International Airport.<sup>15</sup> Furthermore the project will fund the installation of ADS-B<sup>16</sup>, including ground stations and the necessary avionics equipment for aircraft. A detailed roll-out study has been conducted under PAIP identifying requirements, and an implementation coordinator is currently being recruited to supervise implementation.
- h. ***Weather monitoring:*** An Automatic Weather Observation Station will be financed for Bauerfield and Whitegrass International Airport.
- i. ***Secure communications:*** The project will upgrade nationwide-VHF communications and supply and installation of VSAT secure communications system for satellite-based ground-to-ground communications. VSAT installations at the three international airports will enable voice and data communications for airline operations via a full-mesh closed network connecting regional CAAs, airports and air services providers. The project will also finance a management contract, which will operate the network across the region.
- j. ***Power supply:*** Provision of improved power supply including backup generators for Bauerfield and Whitegrass International Airports.
- k. ***Fire safety.*** Bauerfield International Airport currently operates three fire tenders. Due to equipment aging, the vehicles are encountering breakdowns making the airport non-compliant with international requirements. A detailed evaluation of ARFF capacity will be undertaken financed by the PPF outlining requirements to comply with standards for Category 7 airport operations. Based on the evaluation, the project will provide funding for the required activities including, but not limited to, fire tender vehicles, training and fire safety equipment to enable compliance with Category 7 operations. Fire safety equipment including Personal Protection Equipment (PPE) will also be provided to ARFF staff at Pekoia and Whitegrass International Airports. Fire tender

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<sup>13</sup> A DVOR is a type of short-range radio navigation system for aircraft, enabling aircraft with a receiving unit to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons

<sup>14</sup> A DME is a transponder-based radio navigation technology that measures slant range distance by timing the propagation delay of VHF or UHF radio signals.

<sup>15</sup> Localizers are a ground-based navigation aid that give lateral guidance to landing aircraft

<sup>16</sup> ADS-B is a new, low-cost technology that allows for more efficient aircraft surveillance and consequent safer operations across the Pacific. ADS-B is being implemented by all PAIP participating countries.

shelters damaged during the Cyclone will be rebuilt at Bauerfield and Whitegrass International Airports.

- l. **Security equipment:** Provision of safety and security equipment including X-Ray machines for passenger baggage and cargo screening for Bauerfield, Pekoa and Whitegrass International Airports.
- m. **Consulting services:** Procurement of design and supervision consultants for investments under the project.
- n. **Project preparation:** A PPA has been mobilized for a number of preparatory activities, which include: (i) coring and strength testing to inform pavement design; (ii) detailed engineering designs and preparation of bid documents for civil works; (iii) consultation, finalization and publication of project safeguard documents; (iv) evaluation of fire tenders and preparation of bid documents for repair, refurbishment or replacement; and, (v) technical assistance review of project needs. The PPA may also finance, if urgently required prior to the commencement of the project, minor civil works on airport pavements and critical navigation aids.

4. **Component B: Aviation Sector Reform and Training (approx. US\$1.53 million including contingencies and taxes).** This component will help strengthen CAAV, MIPU and other line ministries' priority areas through the development of an Aviation Sector Strategy, technical assistance in legislative and regulatory matters as well as dedicated training for CAAV and aviation related line ministry staff. Activities will include, but are not limited to:

- a. **Aviation Sector Strategy:** An Aviation Sector Strategy, which will take stock of existing conditions in Vanuatu's aviation sector including policy, infrastructure and regulatory aspects, and make recommendations for future policy developments and reforms in the sector.**Advisory Services for Regulatory Oversight:** This includes but is not limited to: (i) legal advisory services for review and update of the Vanuatu Civil Aviation Act; (ii) support in addressing regulatory requirements for introduction of new CNS equipment and other ICAO regulatory requirements; and (iii) implementation of the Aviation Sector Strategy.
- b. **Advisory Services for MIPU:** Advisory services to support MIPU in the management and oversight of the aviation sector.
- c. **Training:** Specific training will be financed to strengthen the institutional capacity to CAAV, MIPU and other associated line ministries as appropriate. Training will be based on a Training Needs Assessment developed under the project.
- d. **PASO Oversight:** Provision of aviation safety and security audit, oversight and advisory services from PASO for CAAV in accordance with the Service Level Agreement between PASO and GoV and agreed annual work plans.

5. **Component C: Strengthening Airport Operations and Management Capacity (approx. \$US1.14 million including contingencies and taxes).** This component will finance:

- a. **Airport Master Plan:** An Airport Master Plan that will focus on AVL's long-term international airport infrastructure development including traffic forecasts, future design requirements and facilities and management options.
- b. **Technical Assistance:** This includes targeted technical assistance for AVL and MIPU to improve planning, financial viability, efficiency, and safety and

security of airport operations. This would include for example the review of aeronautical and non-aeronautical charges to improve financial viability of airport operations.

- c. **Training:** Specific training will be financed to improve technical and managerial capacity within AVL and MIPU. Training will be based on a Training Needs Assessment developed under the project.

6. **Component D: Emergency Reconstruction (approx. US\$3.88 million – including contingencies and taxes).** During project preparation Cyclone Pam devastated Vanuatu, including damaging all three international airports. Damage assessments are still underway. This component is to provide support to the GoV with emergency reconstruction activities related to air transport and related infrastructure yet to be identified in the form of goods and works.

7. **Component E: Project Support (approx. US\$2.48 million including contingencies and taxes).** This component will finance the support required by various parties involved in the program:

- a. **Project Management Support for VPMU.** Funding will be provided for project support staff, including but not limited to a project manager for the project.
- b. **Project Support for AVL.** Funding will be provided for consultants to assist with civil works, navigation aids management and other technical support.
- c. **Support to the TFSU services.** The TFSU has been retained to provide support to MIPU, VPMU and AVL in relation to technical, procurement, financial management, contract management, reporting, and monitoring and evaluation activities.
- d. **Operating Costs:** This activity will finance incremental operating costs of both the VPMU and TFSU in relation to project implementation.
- e. **Project financial audits:** The project will finance costs arising from the conduct of project financial audits.
- f. **VSAT Annual Subscription:** The cost of annual subscriptions for the operation of VSAT infrastructure will be financed by this activity.

## Annex 3: Implementation Arrangements

### VANUATU: Vanuatu Aviation Investment Project (P154149)

#### Project Institutional and Implementation Arrangements

1. The table below summarizes the management roles and responsibilities of the various participants in VAIP. Figure A3.1 shows the project implementation arrangements in detail.

Organization	Management Roles and Responsibilities
<b>Vanuatu</b>	
Ministry of Finance and Economic Management (MFEM) (Executing Agency)	Sign Financing Agreement Responsible for overall project execution Sign Project Implementation Agreement with AVL
Ministry of Infrastructure and Public Utilities (MIPU) (Implementing Agency)	Responsible for the overall implementation of the project with support of VPMU Sign contracts for investments activities Sign TFSU Service Agreement Provide technical inputs, as required Participate in regional procurement committee with support of VPMU Responsible for environmental and social safeguards compliance through VPMU
Vanuatu Project Management Unit (VPMU)	Undertake procurement and financial management with support of TFSU Monitor progress of project activities and oversees day-to-day implementation Manage contracts for all activities under VAIP, including payments, with support from TFSU Monitor environmental and social safeguards compliance for MIPU Provide quarterly reports to TFSU as well as project Monitoring and Evaluation data Represents GoV on RPEC
Vanuatu Project Management Unit Steering Committees (VPMU-SC)	Provides oversight to the project, and VPMU, with obligatory responsibility to the Council of Ministers and the Prime Minister's Office Advises national government of issues or concerns affecting project implementation and proposes remedial actions Represents GoV on the Program Steering Committee
Airports Vanuatu Limited (AVL)	Responsible for providing technical inputs for the scope of works and services for all project activities within its jurisdiction Sign TFSU Service Agreement Sign Project Implementation Agreement with MFEM
Civil Aviation Authority of Vanuatu (CAAV)	Responsible for providing technical inputs for the scope of works and services for all project activities within its jurisdiction
<b>Regional Co-Ordination</b>	
Technical and Fiduciary Services Unit (TFSU)	Supports VPMU in day-to-day implementation of the Project Responsible for all procurement advertising, bid document preparation and procurement processing Assists VPMU with bid evaluation and award Assists in the implementation of accounting procedures in the payment process Assists VPMU with contract monitoring and management Consolidates reports for Project reporting Responsible for PAIP Program FM, monitoring and consolidated reporting
Program Steering Committee (PSC)	Oversees and monitors overall Program implementation Advises the VPMU SC and National Steering Committees of other participating countries of any issues or concerns affecting project implementation and proposes remedial actions Resolve any disputes that may arise in the Program
Regional Procurement	Consists of TFSU and technical specialist from each IA.





oversight of project implementation and of the VPMU, and make project strategic decisions. A project manager will be hired by the VPMU to support the project.

4. AVL will be responsible for providing technical inputs for the scope of works and services for all project activities at its owned-and-operated airports. It will also provide support to the VPMU and MIPU for project implementation including in relation to procurement, contract management, reporting, and monitoring and evaluation. A Project Implementation Agreement will be entered into between the GoV and AVL, on terms acceptable to the Bank, to set out their respective roles and responsibilities regarding Project implementation including but not limited to: (i) providing the required resources for implementation of project activities; and, (ii) maintaining a Service Agreement on terms acceptable to the Bank, between GoV, AVL and TAL for support services to be provided by the TFSU to MIPU, VPMU and AVL. VPMU negotiated the Service Agreement with TAL on behalf of the GoV.

5. The existing VPMU Steering Committee, comprised of representatives of different central and line agency members,<sup>17</sup>, provides overall oversight of Project implementation and of the VPMU, and makes Project strategic decisions. This committee has been active in overseeing a number of ongoing major infrastructure development projects financed by other donors, and provided strong leadership during project preparation. The VPMU Steering Committee's key role will be to advise the GoV and respective Ministries on issues or concerns affecting project implementation and to propose remedial actions accordingly.

### **Regional Institutional and Implementation Arrangements**

6. The PAIP program is led by a Program Steering Committee (PSC), comprising a representative from each of the participating countries, a designated representative of PASO, the PAIP Director of TFSU, and others as appropriate. It meets on a quarterly basis to review and evaluate Program implementation progress. The PAIP Director chairs the PSC and the TFSU acts as Secretariat. The existing VPMU Steering Committee will fulfill the same functions as the National Steering Committees in other participating countries.

7. TFSU has been established within TAL for coordinating regional program activities and supporting project-level implementation. The TFSU will work closely with AVL, MIPU and the VPMU in accordance with the Service Agreement, to ensure that efficient and effective management and administrative practices are followed throughout project implementation.

8. The TFSU consists of the following full-time consultants:

- a. *Program Director*, responsible for coordinating the Program between participating countries and helping to manage resources and timing of the Program;
- b. *Program Manager*, responsible for day to day management of the Program and TFSU;
- c. *Financial Manager*, responsible for managing, coordinating, and overseeing the Program's financial management systems and procedures, in accordance with the Financial Management Manual (FMM) and other framework documents;

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<sup>17</sup> The VPMU Steering Committee is comprised of the following Central Agency Members: (i) Director General of the Office of the Prime Minister; (ii) Director General Ministry of Finance & Economic Management; (iii) Director General of the Ministry of Infrastructure and Public Utilities; (iv) Director General of the Ministry of Foreign Affairs; (v) Director of Public Works Department; (vi) Director of the Finance and Treasure Department; and, (vii) Director of the Department of Strategic Policy and Planning. It also includes Government Line Agency Members without limits approved by the Steering Committee at its meetings. Donors participate in the VPMU as non-voting observers.

- d. *Project Accountants*, responsible for supporting the Project on procedural requirements for day to day payment processing, accounting and financial reporting and for providing financial management training, support and advice to the Project;
- e. *Contracts Manager*, responsible for day to day contract management support for the Program;
- f. *Contracts Administration Officer*, to provide assistance to the Contracts Manager in managing contracts;
- g. *Lead Procurement Specialist*, responsible for management of the Program procurement process;
- h. *Procurement Officers*, to provide assistance to the Lead Procurement Specialist in managing procurement; and
- i. *Team Assistant/Coordinator*, responsible for supporting the administration/co-ordination of the Program.

9. Part-time consultants will be periodically utilized in the following roles to provide a qualified cadre of experts to advise the Program Director and participating countries' project implementation units/agencies on relevant aspects of the Program and their respective projects:

- a. Financial Advisor;
- b. Aviation Procurement Specialist;
- c. Aviation Technical Specialist/s;
- d. Environmental/Safeguards Specialist;
- e. Electrical Engineer;
- f. Building/ Structural Engineer; and
- g. Pavement Engineer.

10. A Service Agreement signed between GoV, AVL and TAL sets forth the tripartite relationship between GoV, AVL, and TAL (through TFSU) regarding project and program implementation. The share to be financed out of the Credit proceeds for TFSU services is specified in the Service Agreement and will be the basis for invoice payments. For procurement, the TFSU Service Agreement assigns TAL the responsibility, with support from VPMU and AVL to:

- a. Prepare bidding documents;
- b. Prepare requests for Expressions of Interest;
- c. Prepare Terms of Reference and Requests for Proposals;
- d. Prepare shortlist evaluation reports;
- e. Respond to bidder/consultant questions and clarifications of Requests for Proposals/Bidding Documents;
- f. Evaluate of submissions/tenders;
- g. Prepare evaluation reports for submission to the World Bank as required;
- h. Contract negotiations; and,
- i. Coordinate contract signatures.

11. The TFSU has sufficient resources to perform the above functions and demonstrated this by providing support to MIPU during the early stages of project preparation. In a period of just over two months the TFSU procured all the key consulting assignments to be financed through the PPA including: (i) consultant for detailed design of runway and preparation of bidding documents; (ii) consultant to assess the rescue fire services; (iii) consultant to prepare

the Environmental and Social Management Plan; (iv) consultant to undertake public consultations on safeguards; and, (iv) contractors to undertake pavement strength testing.

12. In addition to procurement, the TFSU will assist with financial management and contract issues, as well as reporting—in particular consolidated reporting to the World Bank in a format consistent with the other PAIP countries.

#### *Program Administration Mechanisms*

13. A Regional Procurement Evaluation Committee (RPEC) convenes to conduct bid/proposal evaluation and makes civil works contract award recommendations for bid packages that will be tendered for activities involving more than one country. The committee consists of a TFSU representative and a technical specialist from the implementing agency of each country in the procurement. For VAIP, a technical specialist/representative appointed by the VPMU will participate in the committee to advise on technical requirements and to conduct the evaluation of bids/proposals for related Program activities. RPEC is chaired by the PAIP Director, with the TFSU serving as Secretariat.

14. A Program Operations Manual (POM), which includes the Financial Management Manual, has been developed by TFSU to guide all PAIP Program participants, particularly implementing agencies, in the management of project activities. The PAIP POM has been updated to reflect the VAIP project, and provides details on institutional roles and responsibilities for safeguards procedures, monitoring and evaluation for reporting, contract management, and scheduling. It describes the operating principles for the Program Steering Committees. The FM Manual and Procurement Plan will guide fiduciary oversight.

### **Financial Management, Disbursements and Procurement**

#### *Financial Management*

15. The financial management assessment was carried out in accordance with the “Principles Based Financial Management Practice Manual” issued by the Board on March 1, 2010. Overall, the financial management arrangements satisfy the financial management requirements stipulated in OP/BP 10.00, subject to implementation of agreed actions and mitigating measures. Financial management risk is rated “Moderate.” The main financial management risks relate to VPMU’s lack of experience in working with Bank-financed projects, and potential coordination issues between AVL, TFSU and MIPU. To mitigate against these risks: (i) a Program FM Manual (as a part of the POM) detailing the roles and responsibilities of all parties concerned and specifying FM procedures and regulations of the Program will be adopted; (ii) a Service Agreement between GoV, AVL and TAL will be signed, which outlines FM roles and responsibilities of the parties and enables TFSU to provide support to MIPU, VPMU and AVL, including oversight of project FM arrangements; and, (iii) an additional accounting person will be hired to help maintain project financial records within VPMU.

16. **Budgeting Arrangements:** In consultation with the VPMU Steering Committee, the VPMU will prepare and submit a project budget covering the life of the project, for consolidation by TFSU. Based on this annualized budget, an annual procurement plan, works schedule, and disbursement plan will be prepared to detail how the budget will be managed and expended. Details will be provided in the Program FM Manual.

17. **Accounting and Staff Arrangements:** The VAIP funds will be managed through MIPU, which operates under the GoV financial rules, regulations and Government Accounting System (Smartstream), as overseen by MEFM. However, the preparation and reporting will be completed by VPMU as project manager on behalf of MIPU. The TFSU will support the VPMU and will provide oversight of accounting services for the entire Program. There is a Financial Management Officer on staff at VPMU, however, it is likely that another accounting position will need to be provided at VPMU to handle the increased workload associated with the Project. The TFSU Financial Manager and Accountant will provide guidance to, and coordinate with, the VPMU accounting staff.

18. **Internal Controls:** Internal controls for the processing of payments through MIPU will be governed by the Public Finance and Economic Management Act (PFEMA) and the Financial Regulations of Vanuatu. The POM outlines any project specific policies, processes and procedures not covered by the PFEMA and Financial Regulations.

19. **Funds Flow:** A pooled designated account (DA) will be opened at the Central Bank of Vanuatu for the IDA funds in VATU. Withdrawal applications will be prepared by VPMU on behalf of MIPU and authorized by the MFEM, and submitted to the Bank, with a copy to TFSU for Program oversight. MFEM has extensive experience in the use of DAs from various other World Bank-financed projects in Vanuatu. The project will be able to use any of the four disbursement methods: (i) direct payment; (ii) replenishment; (iii) reimbursement; and, (iv) special commitment. The DA will be used for relatively small disbursements related to local purchases of goods and services, project management support and operating costs.

20. **Reporting Requirements:** Quarterly Interim Unaudited Financial Reports (IFRs) will be submitted to IDA not later than 45 days after the end of each reporting quarter. The report will be prepared by the VPMU on behalf of MIPU and reviewed by the TFSU. The VPMU will submit the final report to IDA on behalf of MIPU. MEFM is currently in the process of setting up the Government Accounting System (Smartstream) to either produce the IFRs and Annual Financial Statements, or produce the information to be used to prepare IFRs and Annual Financial Statements, from the accounting, receipts and payments information entered into it. The VPMU will need to maintain a reporting system to produce the required financial management information not able to be produced by the Government Accounting System, and reconciled back to the accounting information in Smartstream on a monthly basis. TFSU uses QuickBooks accounting software. VPMU could use QuickBooks to provide the required financial management information or a compatible package (agreed to by the parties) which has sufficient functionality to: (i) record all financial transactions under the Program; (ii) report in formats acceptable to IDA; and, (iii) perform bank reconciliations. A contracts commitments register will also be maintained.

21. The format for IFRs will be agreed during initial stages of implementation.

22. **Annual Project Financial Statements (FS):** FS will cover all transactions of project components and activities. FS will be prepared in accordance with international and national accounting standards. FS will consist of:

- A Statement of Sources and Uses of Funds that includes all Cash Receipts and Payments, and payments by third parties on behalf of the entity;
- The Accounting Policies Adopted and Explanatory Notes. Explanatory notes should be presented in a systematic manner with items on the Statement of Cash Receipts and Payments being cross-referenced to any related information in the notes; and,

- A Management Assertion that IDA funds have been spent in accordance with the intended purposes as specified in the IDA Credit Agreement.

23. **External Audit Arrangements:** Audit of Project Financial Statements will be conducted by the Vanuatu Auditor General’s Office (AGO), which is the auditor for all government agencies and World Bank projects managed by government agencies in Vanuatu. Annual audits of the project’s financial statements will be required for the life of the Project and are required to be received by the World Bank within six months of the end of the fiscal year for which the reports have been audited. In addition, a copy of the management letter outlining matters that have arisen during the audit should also be provided. The annual FS and audit reports will be made publicly available through the project web sites.

*Disbursements*

24. It is anticipated that the majority of disbursements will be made through direct payment to suppliers, contractors and consultants for eligible expenditures incurred. The minimum application level for direct payment is set in the disbursement letter. The DA will have an authorized ceiling as stated in the Disbursement Letter. Replenishment applications will be submitted monthly or when the DA is drawn by one-third of the authorized ceiling, whichever occurs first.

25. The table below shows the project withdrawal categories.

**Project Withdrawal Categories**

<b>Category</b>	<b>Amount of the Financing Allocated (expressed in SDR)</b>	<b>Percentage of Expenditures to be Financed (Inclusive of Taxes)</b>
(1) Goods, works, non-consulting services, consultants’ services, Audit, Training, TFSU Costs and Operating Costs for the Project other than under Part B.2 of the Project	41,580,000	100%
(2) Refund of Preparation Advance	720,000	Amount payable pursuant to Section 2.07 of the General Conditions
<b>TOTAL AMOUNT</b>	42,300,000	

26. **Project Preparation Advance (PPA):** A PPA in the amount of US\$1 million is in place to enable MIPU to undertake activities supporting project preparation that are consistent with the PDO, and which have been procured in accordance with applicable Bank procurement procedures. Activities financed under the PPA include: (i) pavement strength testing for the runway and apron areas; (ii) pavement core testing for runway and apron areas; (iii) technical evaluation of the airport’s fire tenders including bid document for suggested repairs, refurbishment or replacement; (iv) consultation, finalization and public disclosure of project as provision for bid support; (vi) procurement financial management and project coordination

support provided by the TFSU; (vii) technical assistance review of project needs; and, (vii) incremental operating costs for the VPMU. In order to maintain safe operations the PPA would also, if required, finance emergency remedial civil works to patch the runway to keep it operational until the major civil works commence, and/or the procurement of goods in the form of critical navigation aids, rescue fire services, and security equipment.

27. The GoV has also requested retroactive financing of up to US\$10 million to cover the costs of TFSU support, consulting services, as well the procurement of goods and civil works to ensure safe and secure airport operations in the period from December 15, 2014 until the effectiveness of the Financing Agreement. This is in addition to the US\$ 0.2 million of retroactive financing available from the same date under the PPA agreement.

28. **Pacific Region Infrastructure Facility Grant:** PRIF funds will be disbursed on the basis of PASO invoices to CAAV and approved by MIPU. PASO services and the fees payable for such services are determined in accordance with a Service Level Agreement between PASO and GoV and agreed annual work plans and service requests. The PRIF grant will not finance other PASO-related costs, such as subscription fees. The grant will retroactively finance up to US\$60,000 from July 1, 2014.

#### *Procurement*

29. The procurement capacity assessment of MIPU identified risks related to institutional capacity and decision-making process in handling contracting procedures. The project's overall procurement risk is rated as *substantial*. A key program-level mitigation measure that addresses identified capacity constraints and supports regional harmonization is the utilization of TFSU, which will be responsible for coordinating and handling all procurement activities up to contract signing, as well as support with contract management during implementation. Contract signing under the Credit will be the responsibility of MIPU. The MFEM are responsible for contract signing under the PPA.

30. The following measures were agreed with MIPU:

- A Service Agreement between TAL, GoV and AVL, outlining the roles and responsibilities in procurement and contracting processes, will be signed prior to implementation.
- *Measures to be completed at the start of the project.* Procurement training will be provided by TFSU at the launch workshop.
- *Measures to be carried out throughout project implementation.*
  - The TFSU will be responsible for managing the procurement process, but procurement recommendations for award and other procurement decisions will be made either by RPEC (for regional packages) or MIPU through the VPMU (for Vanuatu only packages).
  - MIPU (through the VPMU) will be responsible for managing all project activities within its jurisdiction, including contract award and signature, monitoring implementation progress, providing authorization for contract payments and providing progress reports for consolidation by the TFSU.
  - All procurement processes and documents will be handled by the VPMU, with the support of the TFSU, in accordance with World Bank procurement guidelines.
  - The VPMU Steering Committee will prepare a paper for the Council of Minister consideration to seek a waiver from the requirements of the Central Tenders

Board, as the investment project is being implemented to address an emergency situation. This is expected to be finalized prior to implementation.

- An appropriate procurement record keeping and monitoring system (including adequate document storage) will be established, operated and managed by VPMU.

31. Procurement will be carried out in accordance with: World Bank’s “Guidelines: Procurement Under IBRD Loans and IDA Credits” dated January 2011 (Revised July 2014); “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” dated January 2011 (Revised July 2014); and the specific provisions stipulated in the Credit Agreement.

**Table A3.1 - Procurement Methods and Review Thresholds**

Procurement Methods	Procurement Thresholds	Prior Review Thresholds
<b>Goods:</b>		
International Competitive Bidding	≥US\$500,000	All contracts subject to prior review
Shopping	<US\$500,000	First shopping contract subject to prior review
Direct Contracting		All contracts subject to prior review
<b>Works:</b>		
International Competitive Bidding	≥US\$1,000,000	All contracts subject to prior review
Shopping	<US\$1,000,000	First shopping contract subject to prior review
<b>Selection of Consultants:</b>		
Selection Methods	Applicability	Prior Review Thresholds
Firms (QCBS, QBS, LCS, CQS and SSS)	In accordance with the World Bank’s Consultant Guidelines	≥US\$100,000 (exception made to SSS, where all contracts under SSS subject to prior review)
Individuals		≥US\$50,000 (exception made to SSS, legal and procurement related assignments, where all contracts are subject to prior review)

32. **Procurement of Works:** Works will be procured through International Competitive Bidding (ICB) by using the World Bank’s Standard Bidding Documents (SBD). Works costing less than US\$1.0 million may be procured through Shopping. Because of a lack of contracting capacity, no National Competitive Bidding (NCB) procurement is planned, so NCB provisions are not included under the Program. Civil works to be procured are shown in Table A3.2.

33. **Procurement of Goods:** Goods estimated to cost US\$0.5 million equivalent or more will be procured through ICB procedures. All ICB procurement will be done using the appropriate World Bank SBD. Off-the-shelf goods with value of less than US\$ 0.5 million may be procured through Shopping. Direct Contracting may be used in exceptional circumstances,



as stated in paragraph 3.7 of the Procurement Guidelines. Goods to be procured are shown in Table A3.2.

**Table A3.2: Procurement Plan as of April 1, 2015**

<b>Description</b>	<b>Procurement Method</b>	<b>Prequal.</b>	<b>Review by Bank</b>	<b>Expected Bid Opening Date</b>	<b>Estimated Cost (US\$)</b>
<b>Works</b>					
Resurface Runway, Apron and Taxiway, Extension of Apron and Markings	ICB	N	Prior	1-Jul-15	\$ 23,249,000
VSAT Installation	DC <sup>1/</sup>	N	Prior	1-Sep-15	\$ 360,000
Domestic Terminal Building	ICB	N	Prior	1-Sep-15	\$ 4,000,000
<b>SUBTOTAL</b>					<b>\$ 27,609,000</b>
<b>Goods</b>					
Navigation (DVOR/DME, Localizer, ATC Console, VHF)	ICB	N	Prior	1-Sep-15	\$ 4,880,000
ADS-B	ICB	N	Post	1-Jan-16	\$ 800,000
VSAT Supply of Equipment	DC <sup>1/</sup>	N	Prior	1-Sep-15	\$ 600,000
Screening Machines	SH	N	Post	1-Nov-15	\$ 150,000
Fire Tender	ICB	N	Prior	1-Jun-15	\$ 1,000,000
SPE Equipment	SH	N	Post	1-Jun-15	\$ 200,000
Airfield lighting, AWOS and PAPI	DC <sup>1/</sup>	N	Prior	1-Sep-15	\$ 2,240,000
Improved Power Supply	ICB	N	Prior	1-Sep-15	\$ 180,000
<b>SUBTOTAL</b>					<b>\$ 10,050,000</b>

<b>Consulting</b>					
Supervision Aviation Investment	CQS		Prior	1-Jul-15	\$ 600,000
Aviation Sector Strategy	CQS		Prior	15-May-15	\$ 400,000
Airport Master Plan	CQS		Prior	15-May-15	\$ 400,000
VSAT (design and supervision plus management of system for 3 yrs contract)	DC <sup>1/</sup>		Prior	15-Jun-15	\$ 450,000
Development of a Training Needs Analysis for AVL and CAAV	CQS		Post	30-Sep-15	\$ 100,000
Legal Advisory Services CAAV	IC -CS		Prior	1-Jun-15	\$ 75,000
Aviation Advisor CAAV	IC -CS		Prior	1-Aug-15	\$ 125,000
Airport Operational Advisor and Support	IC -CS		Prior	1-Oct-15	\$ 150,000
VPMU Project Manager	IC -CS		Prior	1-May-14	\$ 300,000
Civil Works Supervisor AVL	IC -CS		Prior	1-Aug-15	\$ 50,000
Navigation Aids Supervisor AVL	IC -CS		Prior	1-Aug-15	\$ 50,000
<b>SUBTOTAL</b>					<b>\$ 2,700,000</b>

ICB=International Competitive Bidding; DC=Direct Contracting; SHP=Shopping; CQS=Consultant Qualifications Selection; IC-CS=Individual Consultant, Competitive Selection

Notes: 1/ Detailed justification for any direct contracting will be provided before the procurement process starts.

34. **Selection of Consultant Firms:** Consulting contracts expected to cost more than US\$0.3 million equivalent per contract will use the Quality and Cost Based Selection (QCBS) or Quality Based Selection (QBS) in conformity with the Consultant Guidelines. Consulting services estimated under US\$0.3 million equivalent per contract may follow Selection Based on Consultants Qualifications (CQS). Under the circumstances described in paragraph 3.9 of the Consultant Guidelines, consultants may be selected and awarded on a Single-Source Selection (SSS) basis, subject to IDA’s prior approval. Consultants to be procured are shown in Table A3.2, and non-Consulting Services in Table A3.3.

**Table A3.3 – Summary of Procurement Non-Consulting Services**

Description	Procurement Package Number	Procurement Method	Prequal.	Review by Bank	Expected Bid Opening Date	Estimated Cost (US\$)
<b>Works</b>						
Pavement Deflection Testing		DC	N	Post	1-Mar-15 (done)	\$60,000
Pavement Coring Testing		DC	N	Post	1-Mar-15 (done)	\$60,000
		<b>Sub-Total</b>				<b>\$120,000</b>

35. **Selection of Individual Consultants:** Individual consultants will be selected and contracts awarded in accordance with the provisions of Para. 5.1 through 5.5 of the Consultant Guidelines. Under the circumstances described in Para. 5.6 of the Consultant Guidelines, individual consultants may be selected and awarded on a SSS basis, subject to IDA’s prior approval.

36. **Procurement Plan:** The agreed overall procurement plan is available on the Program’s website as well as on the World Bank’s external website. The procurement plan will be updated in agreement with IDA annually, or as required, to reflect project implementation needs. The Procurement Plan excludes training activities, operating costs, and consultant services that have been previously engaged as part of the program and/or project.

*Environmental and Social (Including Safeguards)*

37. The project triggers two World Bank safeguard policies: (i) Environmental Assessment (OP/BP 4.01); and (ii) Involuntary Resettlement (OP/BP 4.12).

38. Potential environmental and social safeguard issues are associated with three project activities at Bauerfield International Airport: civil works and installation of equipment at airfields; sourcing of materials for runway and apron rehabilitation (i.e. quarried aggregate); and potential future subprojects arising from the Airport Master Plan and Aviation Sector Strategy (see below). The project’s area of influence includes the three airfields, quarry sites and truck haul routes for externally-sourced materials.

39. The ESMP prescriptions focus on the substantive works at Bauerfield International Airport. There are currently no major works similar to the runway rehabilitation at the other two airports so no impacts are anticipated and specific ESMP provisions are not warranted. In the event that activities on these airports are more substantive—or due to Cyclone Pam other investments are required—the ESMP will be updated and redisclosed and/or additional ESMP(s) will be prepared and disclosed to specifically address these other Project sites. The ESMP may also be updated based on the findings and recommendations of the Aviation Master Plan that is being prepared under the Project.

40. Airfield civil works are not likely to cause significant environmental or social impacts and are limited to minor construction-related impacts such as noise, dust, waste disposal and worker health and safety. No physical cultural resources have been identified within the construction footprint. These impacts can be readily managed through standard mitigation measures (time limits for noisy works, dust control etc.) which will be incorporated in a contractor's ESMP. The on-site impacts are all site-specific and expected to be reversible. Potential social impacts are likely to be limited to airport concessionaires and small businesses which may experience temporary business impacts.

41. Aggregates for construction will likely be sourced from an existing quarry located in reasonable proximity to the airport. The quantity of material required will not be known until engineering assessments determine the volume of existing aggregate within the airport pavements that can be reused. Potential impacts associated with quarried resources include on-site quarry operations (dust and noise emissions, water management, slope stability, quarry limits etc.) and transport impacts along haul routes associated with heavy vehicles (noise, dust, road safety, road surface condition etc.). In Vanuatu, quarry operations are regulated by Quarry Permit Regulation Order No. 8 (under the Mines and Minerals Act). A quarry permit requires an OH&S Plan and an Environment Management Plan.

42. Runway and apron rehabilitation will likely require removal of some existing materials that are no longer to standard. This material will require disposal either within the airfield or at an approved landfill. Potential waste management and transport impacts were assessed and management measures incorporated in the ESMP.

43. While the majority of the project's activities are expected to be on existing land within airport precincts OP 4.12 is triggered given the uncertainty around land ownership of a preferred quarry and the location of the construction camp. An RPF is included in the ESMP (based on the PAIP ESMF) to cover this eventuality. The policy is also triggered to component C Strengthening Airport Operations and Management Capacity in accordance with the *Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank* (January 2014). This is because there is the potential that the Aviation Master Plan may lead to involuntary resettlement outcomes. The Terms of Reference for this Master Plan will ensure that the master plan consultants will be required to assess potential impacts covered by OP 4.12 during their social analysis (where any land issues may be relevant or required in a Master Plan).

44. The regional program has developed safeguards tools applicable to all PAIP participants, including an Environmental and Social Management Framework (ESMF) and a POM, whose provisions are included in the documentation of each project partner. During project preparation an Environmental and Social Management Plan (ESMP) was prepared in accordance with the Program ESMF. This ESMP was included in the bidding documents and

will form the basis of the Contractor’s ESMP which must be prepared and cleared prior to commencing civil works. The table below shows the disclosure dates.

Instrument	Date of Disclosure	
	In Country	InfoShop
ESMP	March 27, 2015	March 28, 2015

45. Consultation with stakeholders commenced on 11 March 2015 and is ongoing. Further public consultation was originally scheduled at the National Council of Chief's Nakamal in Port Vila. However, Cyclone Pam impacted Vanuatu on 13 March 2015 creating widespread damage and disruption. Accordingly, these consultations were not able to proceed as planned and have been rescheduled to take place as soon as materially possible and will continue take place as needed throughout the implementation of the project. This ESMP will be revised and updated as needed following further public consultations and will be re-disclosed.

46. The project design includes funding for consultants to assist with technical support and the TFSU will be retained to provide support to MIPU, VPMU and AVL in relation to technical, procurement, financial management, contract management, reporting, and monitoring and evaluation activities. Consultants will be procured to prepare the Airport Master Plan and the Aviation Sector Strategy, with ToRs that will follow both the ESSIP and *Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank* (January 2014).

47. An HIV/AIDS education program will be conducted based on the World Bank’s ‘The Road to Good Health’ toolkit, as the civil works activity exceeds US\$10 million. The project will also ensure that “universal access” provisions are included in all infrastructure designs to ensure that people with disabilities are not disadvantaged.

*Monitoring & Evaluation*

48. **Reporting:** The VPMU will monitor overall project implementation and performance. This includes: (i) extent to which project objectives are being achieved; (ii) administrative, physical and financial progress of project components; and, (iii) compliance with the safeguard instruments. These monitoring and reporting arrangements are described in the POM. Monitoring will continue for three years after completion of the construction program and annual reports of the results of the survey program will be prepared.

49. The TFSU will submit to IDA: (i) quarterly contractor/consultant reports; (ii) quarterly progress reports in a format acceptable to IDA; and (iii) annual financial audit reports.

50. The following reports will also be used for purposes of monitoring and evaluation:
- Quarterly/Annual progress reports submitted to the VPMU Steering Committee, IDA and Program donors on the fourth week after the end of a fiscal quarter/calendar year to report on completed work, work to be done in the next quarter/year-end results of implementation of the previous annual work program and plan, and recommendations, if any;
  - Implementation Completion and Results Report; and,
  - Reports on particular topics prepared as may be necessary.

51. Data on compliance with the ESMP will be required of, and collected by, the runway civil works contractor as part of their regular duties. The costs of data collection are included in their bid. The ESMP and the project contracts contain clear remedies for actions to be taken in the event of the contractor's non-compliance with the ESMP.

52. Documentation assuring compliance with any unforeseen resettlement requirements will also be compiled by the Supervision Consultant, and handled in accordance with the ESMP and POM.

53. **Grievance Reporting Mechanism:** In addition to the World Bank GRS, the project will implement an online grievance reporting system and publish the following IDA indicators via a web site:

- Grievance registered related to delivery of project benefits by gender that are actually addressed (%)
- Grievances responded and/or resolved within the stipulated services standards for response times.

This will also comply with the IDA indicator: 'Project-supported organization(s) publishing periodic reports on GRM and how issues were resolved [including resolution rates] (Yes/No)'.

#### *Role of Partners*

54. Pacific Regional Infrastructure Facility (PRIF). PRIF is a multi-donor co-ordination mechanism through which grant resources are administered by the World Bank. Funding from the Government of Australia is being provided to VAIP for financing aviation audit, safety and security oversight services for Vanuatu, to be conducted by PASO.

## **Annex 4: Implementation Support Plan**

### **VANUATU: Vanuatu Aviation Investment Project (P154149)**

#### **Strategy and Approach for Implementation Support**

1. The strategy for implementation support is based on the regional Program features and the risk profile of the participating agencies in Vanuatu. Risks are considered to be high as this is the first major World Bank financed project in Vanuatu for some time so support will be required to familiarize participants with the Bank's processes.
2. The strategic approach for implementation support includes the following measures:
  - **Capacity Constraints.** The Service Agreement between TAL, MIPU and AVL clearly defines the roles and responsibilities of each party, and the coordination mechanisms that have been defined for the overarching program. Additional complementary project staff may be hired within the VPMU to support the implementation of the project.
  - **Commitment to the regional approach to regulatory oversight.** A vital Program outcome aligns the establishment of a departing passenger safety and security levy dedicated to financing CAAV safety and security oversight expenses and AVL aerodrome improvements related to safety and security with a mechanism to support financial sustainability for the purchase of PASO services.

#### **Implementation Support Plan**

3. Formal missions will be conducted at least three times a year during the first two years of implementation, and at least semi-annually thereafter.
4. IDA's implementation support plan will include a series of technical reviews and capacity building activities. In addition to periodic reviews by team leaders, procurement, FM, and safeguards specialists, the plan identifies appropriate technical expertise to be retained during critical implementation periods.



<b>Time</b>	<b>Focus</b>	<b>Skills Needed</b>	<b>Resource Estimate (Staff Weeks)</b>
First 18 Months	Technical review of runway bidding documents	Civil Engineer	4
		Pavement Specialist	2
		Procurement Specialist	4
	Technical review of aviation equipment bidding documents	Aviation Specialist	4
	Environmental Monitoring	Environmental Specialist	4
	Social Safeguard Monitoring	Social Specialist	2
	Review of financial management	Financial Specialist	2
	Implementation Support	ACS	8
18-36	Team Leadership	TTLs	24
	Runway Rehabilitation	Civil Engineer	4
	Aviation Equipment Installation	Aviation Specialist	4
	Technical Reviews of TA Outputs	Technical Specialists	5
	Environmental Monitoring	Environment Specialist	1
	Resettlement Monitoring	Social Specialist	1
	Review of procurement documents	Procurement Specialist	2
	Review of financial management	Financial Specialist	2
36-54	Implementation Support	ACS	8
	Team Leadership	TTLs	12
	Implementation Support	ACS	8

### Skills Mix Required

<b>Skills Needed</b>	<b>Number of Staff Weeks</b>	<b>Number of Trips</b>	<b>Comments</b>
ACS	24	6	
Aviation Specialist	8	4	
Civil Engineer	8	4	
Environ. Specialist	5	3	
Financial Specialist	4	4	
Pavement Specialist	2	1	
Procurement Specialist	6	4	
Social Specialist	3	2	
Technical Specialists	5	3	In various disciplines
TTL	44	12	

## Annex 5: Maps

