

Project Administration Manual

Project Number: 42391
Loan and/or Grant Number(s):
November 2011

Republic of Vanuatu: Port Vila Urban Development
Project

Contents

ABBREVIATIONS

I.	PROJECT DESCRIPTION	1
II.	IMPLEMENTATION PLANS	4
	A. Project Readiness Activities	4
	B. Overall Project Implementation Plan	6
III.	PROJECT MANAGEMENT ARRANGEMENTS	13
	A. Project Implementation Organizations – Roles and Responsibilities	13
	B. Key Persons Involved in Implementation	13
	C. Project Organization Structure	14
IV.	COSTS AND FINANCING	15
	A. Detailed Cost Estimates	15
	B. Detailed Cost Estimates by Expenditure Category	17
	C. Allocation and Withdrawal of Loan and Grant Proceeds	19
	D. Detailed Cost Estimates by Financier	21
	E. Detailed Cost Estimates by Outputs/Components	21
	G. Detailed Cost Estimates by Year	24
	F. Contract and Disbursement S-curve	25
	G. Fund Flow Diagram	26
V.	FINANCIAL MANAGEMENT	27
	A. Financial Management Assessment	27
	B. Disbursement	27
	C. Accounting	28
	D. Auditing	29
VI.	PROCUREMENT AND CONSULTING SERVICES	31
	A. Advance Contracting	31
	B. Procurement of Goods, Works and Consulting Services	31
	C. Procurement Plan	32
	D. Consultant's Terms of Reference	36
VII.	SAFEGUARDS	59
VIII.	GENDER AND SOCIAL DIMENSIONS	70
IX.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	71
	A. Project Design and Monitoring Framework	71
	B. Monitoring	74
	C. Evaluation	75
	D. Reporting	76
	E. Stakeholder Communication Strategy	76
X.	ANTICORRUPTION POLICY	78
XI.	ACCOUNTABILITY MECHANISM	79
XII.	RECORD OF PAM CHANGES	80

Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Finance and Economic Management (MFEM) as executing agency and the Ministry of Infrastructure and Public Utilities/Public Works Department (MIPU/PWD) and Department of Environmental Protection and Conservation (DEPC) as implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by MFEM, MIPU/PWD and DEPC of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan and Grant Agreements. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan or Grant Agreement, the provisions of the Loan and/or Grant Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ADB	=	Asian Development Bank
AusAID	=	Australian Agency for International Development
CPS	=	country partnership strategy
DEPC	=	Department of Environmental Protection and Conservation
DMF	=	design and monitoring framework
EA	=	executing agency
GAP	=	Gender Action Plan
ICB	=	international competitive bidding
IEE	=	initial environmental examination
ISA	=	International Standards on Auditing
MFEM	=	Ministry of Finance and Economic Management
MIPU	=	Ministry of Infrastructure and Public Utilities
NCB	=	national competitive bidding
O&M	=	operation and maintenance
Pm	=	person-month
PPTA	=	project preparatory technical assistance
PRIF	=	Pacific Infrastructure Regional Facility
PVMC	=	Port Vila Municipal Council
PWD	=	Public Works Department
QA	=	quality assurance
QC	=	quality control
QCBS	=	quality- and cost based selection
RF	=	Resettlement Framework
RP	=	Resettlement Plan
SC	=	steering committee
SPS	=	Safeguard Policy Statement
STP	=	sludge treatment plant
TOR	=	terms of reference
VPMU	=	Vanuatu Project Management Unit

I. PROJECT DESCRIPTION

1. Port Vila, with approximately 44,000 residents, is the largest population center, main commercial center, and seat of government in Vanuatu. It has already expanded beyond its originally defined urban boundaries due to rapid economic development, rural-urban migration, and proliferating informal settlements. The estimated population of the resulting “Greater Port Vila” area in 2009 was 58,000 residents. By 2025, this figure may reach 109,000. This does not take into account the growing number of tourists that visit Port Vila and/or transit through the city to different tourism destinations in the country. It is estimated that at a given time about 3,000-4,000 tourists are in the city and beyond. The tourism sector is the lifeline of the national economy. Hence, urban development and the quality of urban services in Port Vila have significant implications for the tourism-led economic growth and overall development of Vanuatu. Despite noticeable improvement in telecommunication and water supply, significant inadequacies continue to exist, particularly in drainage, roads, sanitation, and hygiene services. The poor conditions of these services are adversely affecting public health, economic activities, and the overall quality of life of Port Vila residents and visitors.

2. Port Vila’s major infrastructure, including the roads, storm water drainage, and sanitation subsectors, has received minimal capital support since the time of independence in 1980. Major surfaced roads are heavily potholed and deteriorated due to deferred maintenance and absence of a system to drain the storm water resulting from frequent heavy downpours. The runoff from these downpours causes flooding and chaotic conditions for the vehicle and pedestrian traffic resulting in considerable financial and economic losses. In addition, all road debris such as silt, grit, garbage, waste and oil reach the sea affecting the quality of receiving waters causing damage to the marine environment. The system for removal and disposal of human waste from households and business premises is, at present, environmentally unsatisfactory, as untreated sludge is disposed of in open pits near major waterways, exposing the urban population to waterborne diseases. Communities as well as major public areas of the central business district lack safe and hygienic sanitation facilities. Vanuatu is also extremely vulnerable to natural disasters due to its geographical location in the “ring of fire” and the “cyclone belt” of the Pacific. It is at risk from a wide range of climate-related hazards such as tropical cyclones and floods that are expected over time to increase in severity and frequency as a result of climate change, warranting emphasis on climate resiliency.

3. Sustainable urban development through improved access to basic services such as sanitation and drainage facilities and urban infrastructure is an important priority for the government under its *Priorities and Action Agenda (PAA) 2006-2015* and a medium-term action program, entitled “Planning Long, Acting Short Action Program.”¹ The latter prioritizes a set of short- and medium-term development initiatives. This is also identified among the three core sectors for support under the Asian Development Bank’s (ADB) *Country Partnership Strategy for Vanuatu (CPS) 2010-2014*.² The CPS also places emphasis on long-term support for country systems and capacities in core areas such as rural and urban infrastructure. Currently, Australian Agency for International Development (AusAID), Japan International Cooperation Agency and New Zealand Aid Program are providing a wide range of support covering the urban, rural, and interisland transport and capacity building in the country. ADB and AusAID are expected to assist the government to improve urban infrastructure and services in Port Vila and its periurban areas.

¹ The PAA was developed with ADB support: ADB. 2004. *Technical Assistance to the Republic of Vanuatu for a Medium-Term Strategic Framework*. Manila.

² The two other sectors are transport and energy. ADB. 2009. *Country Partnership Strategy: Vanuatu, 2010-2014*. Manila.

4. In financing and implementing the PAA agenda, the government's strategy with development partners is to maximize grant resources, especially from bilateral sources. The government recognizes that partnership with ADB in conjunction with bilateral partners can result in a higher level of resource flow for PAA, and greater ability to design and implement integrated and robust projects such as the proposed one. One important incentive for the government to prioritize investment in sanitation and related urban development as well as to seek ADB assistance has been the ability of the investment to generate higher revenues and cater to broader socioeconomic goals.

5. The proposed project is designed to implement the investment plan to improve drainage and associated road network as part of the drainage and sanitation master plan for 2011-2025.³ For improving sanitation it will construct a sludge treatment plant that will eventually be the site for a fully piped sanitation system for greater Port Vila. An integrated approach will be used for hygiene and health education and awareness activities to ensure active involvement of the youth and women in the periurban, informal, and rural settlements. Explicit methodology will be developed for public-private partnerships, and community and civil society participation as well as labor-based approaches in the construction and operation and maintenance (O&M) of roads, drainage, sanitation and hygiene facilities. Mitigation of adverse environmental impacts and appropriate investment in climate proofing will also be included in the project.

6. **Impact and Outcome.** The expected impact of the project is sustainable urban development of Port Vila. The expected outcome is that the government of Vanuatu has sustainably improved hygiene situation and reduced water-based hazards in greater Port Vila.

7. **Output 1: The Government has improved the road network and drainage system in greater Port Vila.** This output will comprise (i) repair, improvements and/or renewal of roads with curbs, footpaths, and other essential road features; and (ii) provision of a new storm water drainage system and improvement of existing drains in the highest priority floodprone areas together with new channels. A total of 7 square kilometers of drainage basins in five catchment areas will be supported for road and drainage improvements. Approximately 22 kilometers of roads will be rehabilitated within these five catchment areas.⁴ The project will install grease and silt traps but its scope and design will be open to incorporate additional measures that will allow further treatment of storm water runoff. During the detailed design, the extent of environmental impacts will be examined and further appropriate actions will be recommended.

8. **Output 2: The Government has improved the sanitation system in greater Port Vila.** This output will improve the disposal and treatment of sludge from domestic and commercial septic tanks through (i) improving the management of the privately operated sludge collection and disposal system; (ii) design and construction of a sludge treatment plant (STP) and disposal facility; (iii) transfer of the sludge disposal site from its current location in Bouffa to a new site for disposal and treatment of sludge (which will also be the site for a full-scale sewage treatment in the future); and (iv) construction of a biogas plant as a clean development mechanism (CDM)⁵ project. The STP will be the first-ever sludge treatment plant and a first step toward a piped sewerage system. The STP will be designed to include a biogas plant to generate electricity through capture of methane, with potential for earning carbon credits.

³ ADB. 2010. *Port Vila Urban Development Project Phase 1: Situation Analysis and Master Plan Formulation*. Manila.

⁴ The five catchment areas are (i) Tebakor, (ii) Central Business District, (iii) Lini Highway North; (iv) Seven Stars Ohlen, and (v) Seven Stars Anabrou.

⁵ The CDM allows emission-reduction projects in developing countries to earn certified emission reduction (credits, each equivalent to one ton of carbon dioxide).

9. **Output 3: Central area and settlement communities use improved hygiene facilities.** This output will (i) set up a number of multipurpose, multi-user (MPMU) sanitation facilities including toilets, washing and bathing facilities in villages and periurban settlements, selected on the basis of a demonstrated need and willingness by the community to contribute to the operation and maintenance (O&M) of facilities; (ii) upgrade, rebuild, or refurbish public toilets, principally in the city center and located at major publicly owned sporting facilities; and (iii) involve women in site selection and design of sanitation facilities and maintenance activities.

10. **Output 4: Government agencies and community and user organizations have the capacity to effectively and efficiently manage sanitation, roads and drainage systems.** Training programs will be implemented on (i) planning and policy improvement in hygiene and sanitation, drainage and road development such as the sanitation policy, building code, public roads act and traffic management act; (ii) O&M, monitoring, and quality control of urban road networks and sanitation and drainage facilities; (iii) contract management under public-private partnership; (iv) hygiene and health education and awareness for community organizations; and (v) household sanitation improvement with direct involvement and participation of women and youth. An O&M plan will be developed for the project assets in consultation with other development partners, key government agencies and the private sector, and with due consideration of lessons learned from other projects and for wider application. The project will also provide specific training on (i) gender awareness in hygiene and sanitation for government agencies and community and user organizations, and (ii) management and maintenance of communal sanitation facilities for women and youth groups as part of the project strategy for local employment generation.

11. All training and/or capacity development programs will be developed and implemented in close consultation with other development partners' programs such as the technical and vocational education and training of AusAID. Likewise, the approach and methodology and conduct of awareness raising, education and information dissemination on sanitation, and hygiene and health promotion will be coordinated with relevant departments and organizations such as the Ministry of Health (MoH), Ministry of Education (MoE), Department of Environmental Protection and Conservation (DEPC), UNICEF, local non-government organizations, domestic private sector and other interest groups such as operators of commercial and tourist vessels, hotels and restaurants. The awareness campaigns to be conducted by the project will influence user groups to appropriately dispose and treat wastes.

12. **Output 5: Efficient project management services are provided.** This output will provide necessary technical support and advisory services to the executing agency and implementing agencies in implementing the project efficiently. Advisory, training, and support services will be provided through the engagement of international and national experts for (i) project administration; (ii) preparation and implementation of a project performance monitoring system; (iii) design, procurement, and contract supervision; (iv) gender mainstreaming in project management; (v) project benefit and monitoring and evaluation; and (vi) climate proofing of infrastructure. An international and national project performance monitoring specialist will work closely with Public Works Department (PWD) and Statistics Office in developing a monitoring and evaluation system. The project will consider additional support based on the system that will be developed in the early part of project implementation.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

13. The Ministry of Finance and Economic Management (MFEM) is the EA of the project. The Ministry of Infrastructure and Public Utilities (through its Public Works Department) and DEPC will be the key implementing agencies. The MFEM will establish a Vanuatu Project Management Unit (VPMU) as a dedicated unit for managing large and nationally significant projects with allocation of budget and core staff. AusAID through its Governance for Growth program is assisting MFEM and Prime Minister's Office (PMO) to develop the appropriate structure for the VPMU. The Director of VPMU will be responsible for day to day management of the project supported by VPMU staff, project consultants and the implementing agencies.

14. The staff capacity of MIPU to implement large development projects and undertake O&M is low. There are at least 9 key positions in MIPU that are either vacant or filled on an acting basis, including the Director General. The Government will appoint a permanent Director General of the MIPU and permanent staff to at least 4 of the following positions: (i) Executive Officer, Corporate Services Unit; (ii) Manager, Human Resources Unit (iii) Manager Projects, PWD; (iv) Operations Manager, PWD; (v) Senior Procurement Officer, PWD; (vi) Principal Engineer, PWD; (vii) Administration Manager, PWD; and (viii) Senior Finance Officer. to ensure that the ministry is in a position to undertake implementation and maintain the infrastructure investments. In addition, the Government will cause office of the Auditor General to undertake performance audit of PWD.

15. Consulting services will be provided to assist the VPMU in project implementation. Consulting firms will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time) using quality- and cost-based selection (QCBS) and full technical proposals, except for the project advisor, who will be recruited on individual selection basis. The VPMU Steering Committee will provide guidance and direction for the project. Additional committee members will be appointed to the VPMU steering committee for the project.

16. The project readiness activities for consultant selection processes for the project will commence in November 2011 for completion by March 2012. The project readiness activities are summarized in Table 1. The overall project implementation plan is summarized in Table 2.

Table 1: Summary of Project Readiness Activities

Indicative Activities	2011		2012						Responsibility
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Preparatory actions ^a	√								
Project implementation consultants Recruitment									
• Commencement	√								Government
• Completed								√	Government
Establish VPMU	√								Government
ADB Board approval		√							ADB
Loan signing					√				Government & ADB
Government legal opinion provided						√			Government
Loan effectiveness								√	ADB

^a No retroactive financing required. Preparatory actions financed under TA 7345-VAN.

^b ADB will assist the government in advertising for a firm by putting out a Consultant Selection Recruitment Notice. ADB = Asian Development Bank.

B. Overall Project Implementation Plan

Table 2: Overall Project Implementation Plan

Activities with Milestones	2012						2013				2014				2015				2016				2017					
	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	J	F	M	A	M
Output 1: The Government has improved the road network and drainage system in greater Port Vila.																												
1.1 Adopt and implement roads and drainage improvement and maintenance program, and monitor implementation by the PWD. (by Q1, 2017)																												
1.1.1 Detailed design																												
1.1.2 Bidding, bid evaluation, and award of contracts																												
1.1.3 Procurement support																												
1.1.4 Construction supervision																												
1.1.5 Roads and drainage works (Tebakor, CBD, LHN, Seven Stars Ohlen, and Seven Stars Anabrou catchments)																												
1.1.6 Tunnel component works																												
1.2 Prepare terms of reference for the appropriate private sector that which will be involved in asset management and performance of drain clearing and street sweeping services (by Q2, 2013)																												
1.2.1 Detailed design																												
1.3 Surface/reconstruct roads, curbs, intersections, footpaths, and road features, based on the urban road renewal project preliminary design study prepared by MIPU (by Q1, 2017)																												
1.3.1 Detailed design																												
1.3.2 Bidding, bid evaluation, and award of contracts																												
1.3.3 Procurement support																												
1.3.4 Construction supervision																												
1.3.5 Roads and drainage works (Tebakor,																												

Activities with Milestones	2012							2013				2014				2015				2016				2017				
	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	J	F	M	A	M
2013)																												
5.2.1 Bidding, bid evaluation, and award of contracts																												
5.2.2 Procurement support																												
5.3 Provide timely progress reports until completion of the project. (until 2017)																												
5.3.1 Construction supervision																												
5.3.2 Institutional strengthening																												
5.4 Monitor issues and concerns arising from project implementation. (until 2017)																												
5.4.1 Institutional strengthening																												
5.5 Develop and implement a project benefit monitoring and evaluation framework including collection of gender-specific data and information. (by Q3 2013)																												
5.5.1 Institutional strengthening																												
5.6 Provide training and advisory services on project administration; preparation and implementation of a project performance monitoring system; design, procurement, and contract supervision; and climate proofing of infrastructure, among others. (by Q2 2014)																												
5.6.1 Institutional strengthening																												
5.7 Carry out regular accounting and annual audit. (until 2017)																												
5.7.1 Institutional strengthening																												

CDM = clean development mechanism, DEPC = Department of Environmental Protection and Conservation, MIPU = Ministry of Infrastructure and Public Utilities, MoE = Ministry of Education, MoH = Ministry of Health, PBME = project benefit monitoring and evaluation, PPTA = project preparatory technical assistance, PVMC = Port Vila Municipal Council, PWD = Public Works Department, UNFCCC = United Nations Framework Convention on Climate Change, WHO = World Health Organization.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

17. Table 3 shows the project stakeholders and their respective management roles and responsibilities to the project.

Table 3: Roles and Responsibilities

Project Stakeholders	Management Roles and Responsibilities
Ministry of Finance and Economic Management	<p>Borrower</p> <ul style="list-style-type: none"> ▪ Ministry responsible for external borrowing <p>Executing Agency</p> <ul style="list-style-type: none"> ▪ Responsible for submitting withdrawal applications; reporting requirements, including submitting the annual audit report and audited financial statements; and record keeping ▪ Provide counterpart funds including in-kind contribution (e.g., land for sludge treatment plant), project management and counterpart staff, and taxes and duties. ▪ Establish the VPMU consisting of an initial three staff
Ministry of Infrastructure and Public Utilities (through the Public Works Department) Department of Environmental Protection and Conservation	<p>Key Implementing Agencies</p> <ul style="list-style-type: none"> • Responsible for the implementation of the project for the engineering designs, construction, and operations and maintenance of roads, drainage, sanitation and hygiene facilities and other technical support that may be required. • Provide overall guidance in implementing the environmental requirements of the project, including training support for relevant organizations.
ADB	<p>Lender</p> <ul style="list-style-type: none"> ▪ Project financier through concessional loan
AusAID	<p>Joint cofinancier</p> <ul style="list-style-type: none"> ▪ Joint cofinancier of the project through grant assistance
Beneficiaries	<ul style="list-style-type: none"> ▪ The residents of settlement communities, particularly women's groups, will be responsible to manage and keep up multipurpose, multi-user sanitation facilities.

B. Key Persons Involved in Implementation

Ministry of Finance and Economic Management Director General
+678 22790
PMB 9057
Port Vila, Vanuatu

Asian Development Bank Andrea Iffland
Director, Urban, Social Development and Public Management
Pacific Regional Department

+632 632 4444
aiffland@adb.org

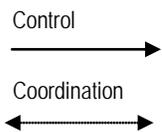
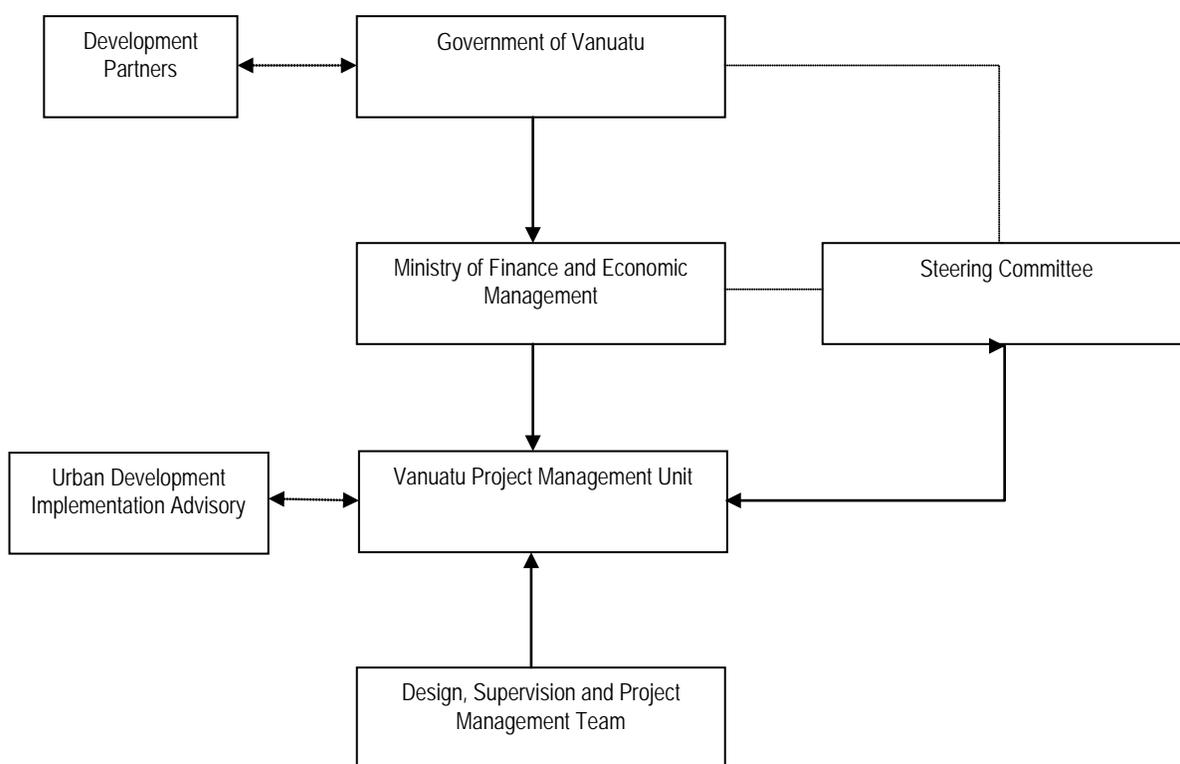
Mahfuz Ahmed
 Principal Natural Resources and Agriculture Economist
 Pacific Regional Department
 +632 632 4444
akmahmed@adb.org

Australia

Simon Cramp, Director Governance for Growth

C. Project Organization Structure

Figure 1: Organization Chart



IV. COSTS AND FINANCING

A. Detailed Cost Estimates

18. The project is estimated to cost \$39.1 million equivalent, including taxes and duties. The investment plan is summarized in Table 4. Detailed cost estimates by expenditure category, financiers, outputs and year are presented in sections B, E, F and G. The allocation and withdrawal schedule of loan and grant proceeds are shown in sections C and D, respectively.

Table 4: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Road networks and drainage systems improvement	21.6
2. Sanitation system	5.4
3. Hygiene improvements	0.9
4. Institutional strengthening	1.5
5. Project management office	4.7
Subtotal (A)	34.1
B. Contingencies^c	4.9
C. Financing Charges during Implementation^d	0.1
Total (A+B+C)	39.1

^a Including approximately \$2.6 million in taxes and duties to be financed from the government.

^b In mid-2011 prices.

^c Physical contingencies computed at 6.5% for civil works and equipment and materials purchases, surveys, training, and studies. Price contingencies computed at 0.7% in 2011, 0% in 2012, and 0.5% in 2013 and onward for foreign currency costs; and 3.9% in 2011 and 3% in 2012 and onward for local currency costs; also includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Interest during construction is computed at 1% per annum.

Sources: Government of Vanuatu and ADB estimates.

19. The government has requested a loan in various currencies equivalent to SDR 3,174,000 from ADB's Special Funds resources to help finance the project. The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions as set forth in the draft loan agreement. The interest during construction on the ADB loan is to be capitalized. Transportation and insurance costs may be financed by loan and grant proceeds.

20. The Government of Australia will provide grant cofinancing of \$31 million consisting of \$5.39 million through the Memorandum of Understanding on Channel Financing between the Government of the Commonwealth of Australia and ADB, and approximately \$25.61 million (equivalent in A\$25.61 million), to be administered by ADB. The government will provide counterpart funding of \$3.1 million of the project costs including taxes, duties and land for the sludge treatment plant. Table 5 shows the tentative financing plan.

21. **Administration of Cofinancing.** ADB will administer the grant cofinancing to be provided by the Government of Australia. ADB will review the procurement of works, goods, and services by MIPU (including but not limited to invitations to bid, bidding documents, specifications, and other documents relating to procurement) as well as approve the award of contracts through bid evaluation reports proposed by MIPU for such procurement in accordance

with ADB's Procurement Guidelines (2010, as amended from time to time) and eligibility requirements. See Section VI for details.

22. ADB will review the selection and recruitment of consultants to be engaged by MFEM (including qualifications and proposed terms and conditions of employment of consultants) and will approve the contract(s) negotiated between the consultants and MIPU. Consultants will be selected and engaged in accordance with Guidelines on the Use of Consultants (2010, as amended from time to time). See Section VI for details.

Table 5: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank loan	5.00	12.8
Government of Australia	5.39	13.8
CFA	25.61	65.5
Project grant ^a	3.10	7.9
Government		
Total	39.10	100.0

^a = This amount includes ADB's administration fee, audit cost, bank charges, and a provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant, or any additional grant contribution by the Government of the Commonwealth of Australia. CFA = Memorandum of Understanding on Channel Financing between the Government of the Commonwealth of Australia and ADB.

Sources: Government of Vanuatu and ADB estimates.

1 Consulting Services								
a. Implementation Advisory Consultants (International)	-	38.8	38.8	-	0.5	0.5	100	1
b. Design and Supervision Consultants								
Design & Implementation Consultants (international)	-	218.3	218.3	-	2.5	2.5	100	7
Design & Implementation Consultants (national)	-	103.5	103.5	-	1.2	1.2	100	4
2 Miscellaneous administration and support cost ^b	19.5	6.3	25.8	0.2	0.1	0.3	24	1
Subtotal	19.5	328.1	347.5	0.2	3.8	4.0	94	12
3 Project Operations	14.3	-	14.3	0.2	-	0.2	-	-
Subtotal (E)	33.7	366.9	400.6	0.4	4.3	4.7	92	14
Total BASELINE COSTS	1,703.2	1,223.5	2,926.6	19.8	14.2	34.0	42	100
Physical Contingencies	110.8	79.5	190.3	1.3	0.9	2.2	42	7
Price Contingencies	207.1	25.9	233.0	2.4	0.3	2.7	11	8
Total PROJECT COSTS	2,021.1	1,328.9	3,350.0	23.5	15.5	39.0	40	114
Interest During Implementation	-	10.3	10.3	-	0.1	0.1	100	-
Total Costs to be Financed	2,021.1	1,339.2	3,360.3	23.5	15.6	39.1	40	115

^a = Figures may not add up to total because of rounding off; reference is to be made to the Costab-generated excel sheets.

^b = Includes support staff costs, communications, transport costs, and office support, among others.

C. Allocation and Withdrawal of Loan Proceeds

ADB Loan				
CATEGORY				Percentage
Number	Item	Total Amount Allocated SDR		
		Category	Subcategory	
1	Civil Works	[4,086,000]		
1a	Drainage and Road Improvement		[3,181,000]	19.6% of total expenditure claimed ^a
1b	Sanitation (output 2) ^b		[766,000]	16.3% of total expenditure claimed ^a
1c	Hygiene (output 3) ^b		[139,000]	16.3% of total expenditure claimed ^a
2	Interest During Construction	[120,000]		100% of total amounts due
3	Unallocated	[794,000]		
	TOTAL	[5,000,000]		

^a = Exclusive of local taxes and duties.

^b = Subject to the disbursement condition indicated in the RRP (para. 38), that prior to the disbursement of financing in respect of output 2 (improved sanitation), the government will acquire the land for the sludge treatment plant in accordance with the resettlement plan.

SDR = special drawing rights

D. Allocation and Withdrawal of Grant Proceeds

Table 6: Memorandum of Understanding on Channel Financing Between the Government of the Commonwealth of Australia and ADB

CATEGORY				Percentage
Number	Item	Total Amount Allocated \$		
		Category	Subcategory	
1	Drainage and Road Improvement	3,282,000		100% of total expenditure claimed ^a
2	Trainings, Workshops, and Campaigns	295,000		100% of total expenditure claimed ^a
3	Consulting Services	1,752,000		
3a	Implementation Advisory Consultants (international)		452,000	100% of total expenditure claimed ^a
3b	Design and Implementation Consultants (international)		1,034,000	100% of total expenditure claimed ^a
3c	Design and Implementation Consultants (national)		266,000	100% of total expenditure claimed ^a
4	Miscellaneous Administration and Support Cost	60,000		100% of total expenditure claimed ^a
	TOTAL	5,389,000		

Table 7: Government of Australia Project Grant

CATEGORY				Percentage
Number	Item	Total Amount Allocated		
		\$		
		Category	Subcategory	
1	Civil Works	17,706,000		
1a	Drainage and Road Improvement		13,058,000	80.4% of total expenditure claimed ^a
1b	Sanitation (output 2) ^b		3,933,000	83.7% of total expenditure claimed ^a
1c	Hygiene (output 3) ^b		715,000	83.7% of total expenditure claimed ^a
2	Trainings, Workshops, and Campaigns	1,161,000		100% of total expenditure claimed ^a
3	Consulting Services	2,441,000		
3a	Design and Implementation Consultants (international)		1,504,000	100% of total expenditure claimed ^a
3b	Design and Implementation Consultants (national)		937,000	100% of total expenditure claimed ^a
4	Miscellaneous Administration and Support Cost ^c	222,000		100% of total expenditure claimed ^a
5	Unallocated ^d	4,081,000		
	TOTAL	25,611,000		

^a = Exclusive of local taxes and duties.

^b = Subject to the disbursement condition indicated in the RRP (para. 38), that prior to the disbursement of financing in respect of output 2 (improved sanitation), the government will acquire the land for the sludge treatment plant in accordance with the resettlement plan.

^c = Includes support staff costs, communications, transport costs, and office support, among others.

^d = This amount includes ADB's administration fee, audit cost, bank charges, and a provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant, or any additional

E. Detailed Cost Estimates^a by Financier

(\$ Thousand)										
Outputs/Activities	Government		ADB		CFA ^b		Government of Australia/Project Grant ^c		Total Cost	
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Total Cost
I Investment Costs										
A Civil Works	0.0		4,086.0	16.3	3,282.0	13.1	17,706.0	70.6	25,074.0	64.2
1 Drainage and Road System Improvement			3,181.0	16.3	3,282.0	16.8	13,058.0	66.9	19,521.0	50.0
2 Sanitation			766.0	16.3			3,933.0	83.7	4,699.0	12.0
3 Hygiene			139.0	16.3			715.0	83.7	854.0	2.2
B Land Acquisition Cost	238.0						0.0		238.0	0.6
1 Land Acquisition Cost	238.0	100.0					0.0		238.0	0.6
C Trainings, Workshops, Campaigns	0.0				295.0	20.2	1,161.0	79.8	1,456.0	3.7
1 Institutional Strengthening	0.0				295.0	20.2	1,161.0	79.8	1,456.0	3.7
D Consulting Services	0.0				1,752.0	41.8	2,441.0	58.2	4,193.0	10.7
1 Implementation Advisory Consultants (International)					452.0	100.0			452.0	1.2
2 Design & Implementation Consultants (international)					1,034.0	40.7	1,504.0	59.3	2,538.0	6.5
3 Design & Implementation Consultants (National)					266.0	22.1	937.0	77.9	1,203.0	3.1
Miscellaneous administration and support costs^d					60.0	21.2	222.0	78.8	282.0	0.7
F Project Operational Cost^e	156.0	100.0							156.0	0.4
G Taxes & Duties^f	2,614.0	100.0							2,614.0	6.7
Total Investment Costs	3,008.0	8.8	4,086.0	12.0	5,389.0	15.8	21,530.0	63.3	34,011.0	87.1
II Interest During Implementation	0.0	0.0	120.0	100.0			0.0	0.0	120.0	0.3
III Contingencies										
Physical contingency	11.0	0.5	358.0	16.3			1,832.0	83.2	2,201.0	5.6

	Price contingency	37.0	1.4	436.0	16.0		2,249.0	82.6	2,722.0	7.0	
IV	Total Project Cost	3,055.0	7.8	5,000.0	12.8	5,389.0	13.8	25,611.0	65.6	39,054.0	100.0

^a= Figures may not add up to total because of rounding off; reference is to be made to the Costab-generated excel sheets.

^b= Memorandum of Understanding on Channel Financing between the Government of the Commonwealth of Australia and ADB. CFA funds will be frontloaded at the contract commitment level.

^c= This amount includes ADB's administration fee, audit costs, bank charges, and a provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant, or any additional grant contribution by the Government of Australia.

^d= Includes support staff costs, communications, transport costs, and office support, among others..

^e= In-kind contribution.

^f= To be financed by government.

F. Detailed Cost Estimates^a by Outputs/Components

(\$ Million)

	Total PROJECT COSTS		Output 1: Roads & Drainage System Improvement		Output 2: Sanitation Improvement		Output 3: Hygiene Improvement		Output 4: Institutional Strengthening		Output 5: Project Management and Operations	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I Investment Costs												
A. Civil Works	27.7	71.0	21.6	77.9	5.2	18.8	0.9	3.3	-	-	-	-
B. Land Acquisition Cost	0.2	0.6	-	-	0.2	100.0	-	-	-	-	-	-
C. Trainings, Workshops, Campaigns	1.5	3.8	-	-	-	-	-	-	1.5	100.0	-	-
D. Consulting Services	4.5	115	-	-	-	-	-	-	-	-	4.5	100.0
E. Project Operational Cost ^b	0.2	0.4	-	-	-	-	-	-	-	-	0.2	100.0
Total BASELINE COSTS	34.0	87.4	21.6		5.4		0.9		1.5		4.7	
II Physical Contingencies	2.2	5.7	1.4	64.1	0.3	15.2	0.1	2.7	0.1	4.3	0.3	13.7
Price Contingencies	2.7	7.0	1.8	66.8	0.5	17.1	0.1	4.1	0.2	7.5	0.1	4.7
Total PROJECT COSTS	39.0	100.0	24.8		6.2		1.1		1.8		5.1	
Taxes	2.6	6.7	2.0	77.8	0.5	18.7	0.1	2.5	0.0	-	0.0	1.0
Foreign Exchange	15.5	39.7	8.6	55.9	2.1	13.5	0.1	0.8	0.0	-	4.6	29.9

^a= Figures may not add up to total because of rounding off; reference is to be made to the Costab-generated excel sheets.

^b= In-kind contribution from government.

G. Detailed Cost Estimates^a by Year

\$ Million

	Base Cost					Foreign Exchange		
	Year 1	Year 2	Year 3	Year 4	Year 5	Total ^d	%	Amount
A. Civil Works	0.0	9.9	9.9	7.8	0.0	27.7	36.0	10.0
1. CW Drains and Roads	-	7.9	7.9	5.7	-	21.6	36.8	7.9
2. CW STP	-	1.7	1.7	1.7	-	5.2	36.9	1.9
3. CW Hygiene	-	0.3	0.3	0.3	-	0.9	12.2	0.1
B. Land Acquisition Cost	0.2	-	-	-	-	0.2	-	-
C. Trainings, Workshops, Campaigns	0.3	0.3	0.3	0.3	0.3	1.5	-	-
D. Consulting Services	1.8	1.3	0.6	0.6	0.2	4.5	94.8	4.3
1. Implementation Advisory Consultants (International)	0.5	-	-	-	-	0.5	100.0	0.5
2. Design & Implementation Consultants (international)	1.0	0.9	0.3	0.3	-	2.5	100.0	2.5
3. Design & Implementation Consultants (National)	0.3	0.3	0.3	0.2	0.1	1.2	100.0	1.2
E. Miscellaneous administration and support costs^b	0.1	0.1	0.1	0.1	0.1	0.3	24.4	0.1
F. Project Operational Costs^c	0.0	0.0	0.0	0.0	0.0	0.2	-	-
TOTAL BASELINE COSTS	2.4	11.6	10.9	8.7	0.5	34.1	41.6	14.2
Physical Contingencies	0.1	0.8	0.7	0.6	0.0	2.2	40.0	0.9
Price Contingencies	0.1	0.7	0.9	0.9	0.1	2.7	11.0	0.3
Total PROJECT COSTS	2.6	13.0	12.5	10.2	0.6	39.0	39.3	15.5

^a = Figures may not add up to total because of rounding off; reference is to be made to the Costab-generated excel sheets.

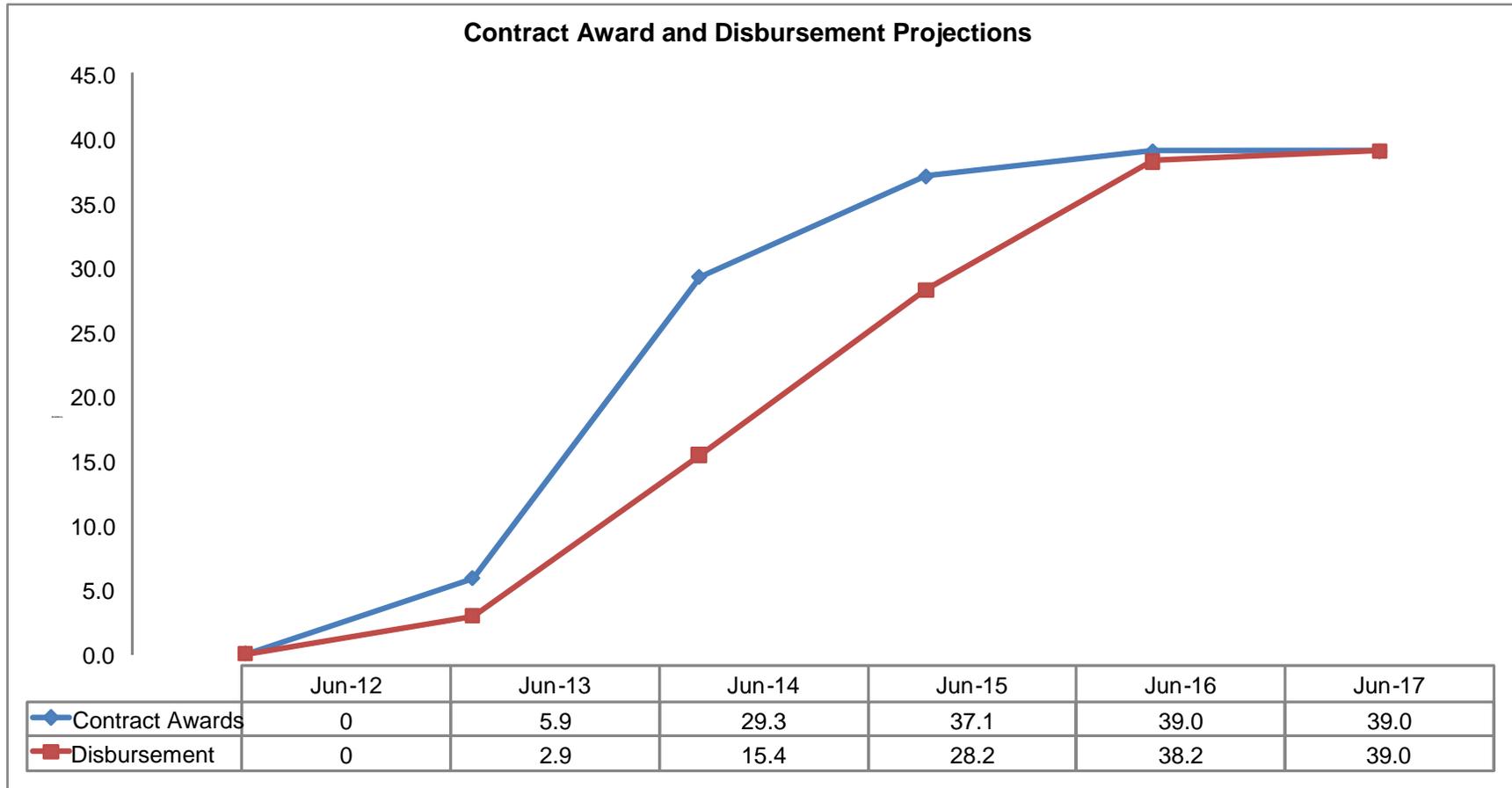
^b = Includes support staff costs, communications, transport costs, and office support, among others.

^c = In-kind contribution from government.

^d = Inclusive of taxes and duties.

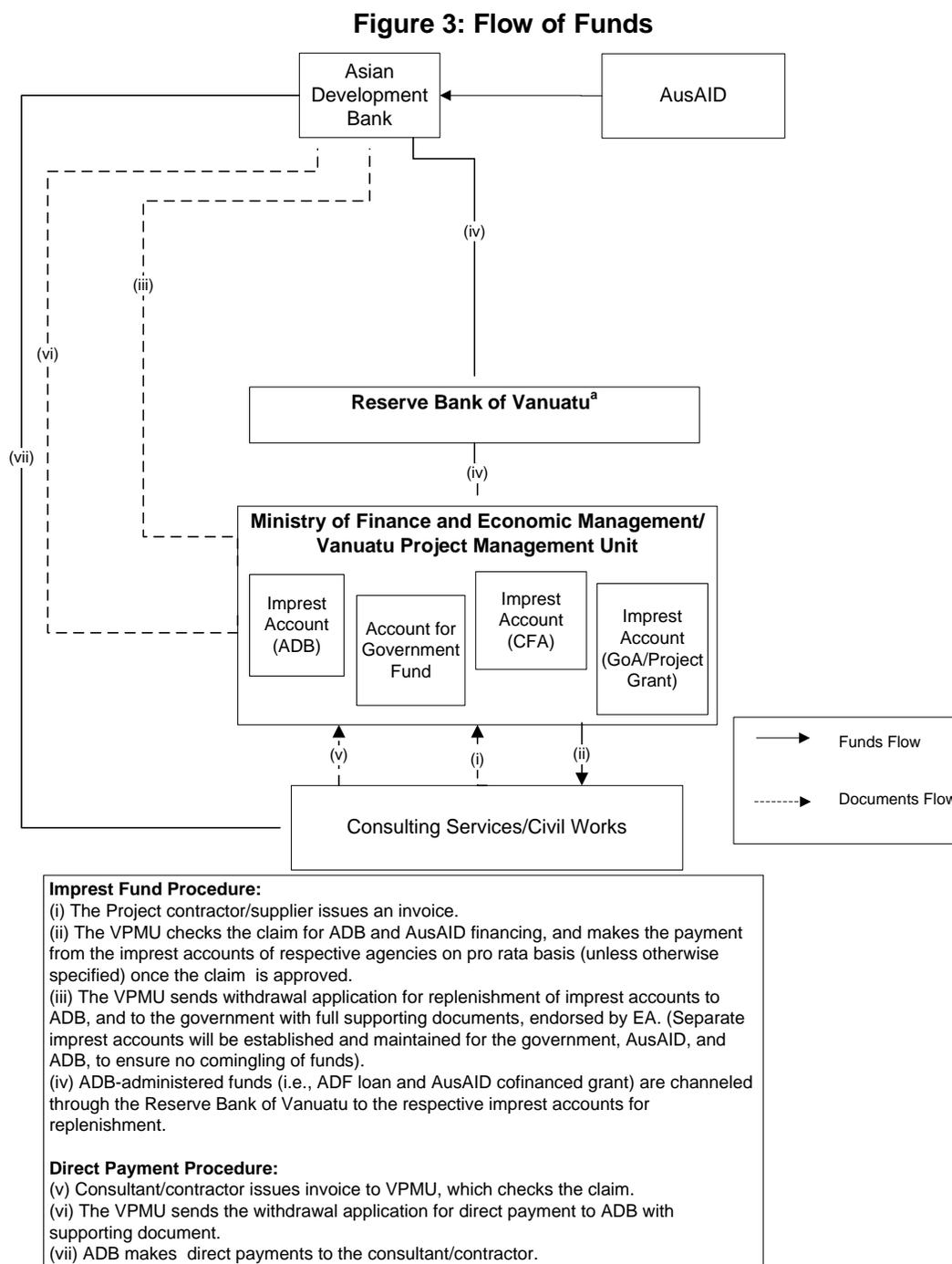
H. Contract and Disbursement S-curve

23. Figure 2 shows contract awards and disbursement over the life of the project, and annually based on the contract awards and disbursement projections.



I. Fund Flow Diagram

24. Figure 3 shows how the funds will flow from ADB, AusAID, and the Government of Vanuatu to implement project activities.



^a = Flow of funds in the Reserve Bank of Vanuatu account will be a pass-through account.

ADB = Asian Development Bank, AusAID= Australian Agency for International Development, CFA = Channel Financing Agreement between the GoA and ADB, EA = executing agency, GoA = Government of Australia, MFEM = Ministry of Finance and Economic Management, VPMU = Vanuatu Project Management Unit.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

25. Capacity assessment of the MIPU in financial management was conducted as part of the PPTA in order to determine its suitability to act as the executing agency for the project.⁶ Although MIPU's policies and procedures for financial management are focused on control and accounting of revenue inflows and expenditure outflows, its capacity to manage finances and undertake procurement activities for large development projects was found to be low. To address this, the Government will establish a VPMU within MFEM as a dedicated unit for managing large and nationally significant projects with allocation of budget and core staff. The VPMU is expected to achieve its full structure under the guidance of MFEM and PMO before the effectiveness of the project. MFEM has acceptable financial management practices, however, the VPMU will need significant capacity building in financial management in general, and specifically in applying ADB's disbursement policies and procedures. Institutional and structural reform of PWD is under way with AusAID assistance which will further improve institutional capacity. The project will engage financial management and accounting experts to support the VPMU.

26. The EA will prepare an anticorruption strategy and action plan for the project and establish a complaint mechanism. MIPU through PWD and MFEM will support anticorruption efforts and transparency through consultation on major project decisions regarding reforms, and subproject selection and implementation. The SC will have an oversight role to ensure good governance of the project. The government also has an integrated computerized and centralized financial management system. MFEM has adopted International Public Sector Accounting Standards including accrual accounting and double entry bookkeeping, and reporting via a chart-of-accounts tied to budgetary cycles. Capacity development under the project will further strengthen financial management capacity of MFEM and MIPU.

B. Disbursement

27. Loan and grant proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2007, as amended from time to time),⁷ and detailed arrangements agreed upon between the government and ADB. The disbursements from the loan proceeds will be in accordance with the Allocation and Withdrawal of Loan Proceeds specified in the loan agreement. Disbursements of the AusAID grants for each project output will be also administered in accordance with ADB's Loan Disbursement Handbook on a joint cost-sharing basis in accordance with the financing plan and the legal agreements.

28. Pursuant to ADB's Safeguard Policy Statement (June 2009) (SPS),⁸ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth in Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

29. *Direct payment disbursements* from the loan and grant proceeds under the civil works contracts and consulting services will be paid generally by direct payment procedures. The VPMU will review the claims submitted under the contracts and prepare the withdrawal

⁶ A detailed Financial Management Assessment of MIPU is provided in supplementary document 16 of the RRP.

⁷ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

⁸ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

applications with complete supporting documents, and submit to ADB for processing of payments.

30. To expedite project implementation through the timely release of funds, the borrower will establish separate *imprest accounts* for the loan and the grants at the Reserve Bank immediately after loan and grant effectiveness. The imprest accounts will be administered by VPMU in accordance with the ADB's *Loan Disbursement Handbook* (2007, as amended from time to time). Disbursement requests will be made by the VPMU, countersigned by the director general of MFEM. Except as ADB may otherwise agree, the ceiling for each imprest account will not exceed \$100,000.⁹

31. The request for the initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet¹⁰ setting out the estimated expenditures for the first 6 months of project implementation, and submission of evidence satisfactory to ADB that the imprest accounts have been duly opened. For every liquidation and replenishment request of the imprest accounts, the borrower will furnish to ADB (i) the statement of account (bank statement) where the imprest account is maintained, and (ii) the imprest account reconciliation statement reconciling the above mentioned bank statement against MFEM's records.¹¹ MFEM will submit withdrawal applications with relevant supporting documents substantiating eligible expenditures for the replenishment and liquidation of the imprest fund.

32. Before the submission of the first withdrawal application, MFEM should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$50,000, unless otherwise approved by ADB. MFEM is to consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods and/or services were produced in or from ADB members, and are eligible for ADB financing. Withdrawal applications must be prepared in the currency of the account. Prior to disbursement of financing in respect of output 2 (improved sanitation), the government will acquire the land for the sludge treatment plant in accordance with the resettlement plan.

C. Accounting

33. The project will be implemented through existing institutions and using country systems where possible. MFEM will maintain separate project accounts and records by funding source for all expenditures incurred on the project. Project accounts will follow international accounting principles and practices.¹²

34. Project accounts will be established and maintained in accordance with sound accounting principles and practices that will follow internationally accepted accounting standards. The VPMU will ensure that accounting policies, procedures, and guidelines under the project will reflect the following basic but important aspects:

- the basis of accounting to be adopted, i.e., the accrual or cash basis of accounting;

⁹ Bank charges may be financed by ADB/AusAID funds.

¹⁰ Available in Appendix 29 of the *Loan Disbursement Handbook*.

¹¹ As highlighted in Appendix 30 of the *Loan Disbursement Handbook*.

¹² The Government of Vanuatu uses the International Public Sector Accounting Standards.

- a comprehensive chart of accounts that will allow for the proper recording of project financial transactions, including the allocation of detailed expenditures in accordance with project components, viz., civil works and administration/operating costs; the chart of accounts should also be designed to easily identify the sources of funds and explicitly show how these funds are expended;
- internal control mechanisms and accounting systems procedures that provide for segregation of duties between units or persons, show evidence of transactions reviews, checking and authorization, supervision and monitoring of operations, physical safeguards, review and analysis of results and output, information technology security, etc.; individual accounting systems procedures such as payment procedures should be detailed enough to avoid ambiguity and misinterpretation;
- systems features that require and facilitate monthly reconciliation of key accounts such as the bank account, accounts payable, work-in-progress, etc;
- reporting formats for both financial and nonfinancial reports required by ADB, AusAID, MFEM, and other stakeholders and the required frequency for generation of these reports;
- policies relating to provision, attachment, and retention of supporting documents such as quotations, purchase orders, original copies of invoices, goods received reports, check requisitions, payment vouchers, and receipts;
- budgetary preparation and approval, periodical reviews, variance analysis, and reporting;
- specific compliance requirements of funding agencies and stakeholders;
- bank signatories and mode of operating the bank accounts;
- assets policy, management, and insurance.

35. The VPMU will produce and provide automatically generated reports, financial and nonfinancial, designed and formatted to suit ADB and other cofinanciers' reporting requirements. An exhaustive list of these reports specifying contents and how they will be used is to be provided by the project consultants assisting the VPMU upon implementation of the project. These reports will have features capable of reporting separately on all five components.

36. Monthly and annual financial statements conforming to international accounting standards are to be prepared on a consistent basis so as to provide useful and up-to-date information for project decision making and monitoring of project performance by the SC, MIPU, cofinancier(s), and other important stakeholders.

D. Auditing

37. The MFEM will cause the detailed consolidated project accounts to be audited in accordance with International Standards on Auditing (ISAs) by an independent external auditor acceptable to ADB. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency. The annual audit report will include a separate audit opinion on the use of the imprest accounts. The government and MFEM have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.¹³ For revenue generating projects only, ADB

¹³ For ADB's detailed requirements for the delivery of audited annual financial statements of projects and executing agencies please refer to Financial Management and Analysis of the Projects <http://www.adb.org/documents/guidelines/financial/financial-governance-management.pdf>

requires audited financial statements (AFS) for each executing and/or implementation agency associated with the project.

VI. PROCUREMENT AND CONSULTING SERVICES

38. A procurement capacity assessment of MIPU has established that it has satisfactory procedures and policies in place, and has considerable experience in implementing external assistance. However, its experience to undertake procurement for large projects is limited. On the other hand, MFEM has experience in centralized procurement for large projects. It recently supported MIPU implement the Millennium Challenge Corporation using a centralized procurement system through a project management unit. Capacity development will be provided through the project to strengthen procurement capacity of both MFEM and MIPU with a focus on preparing and evaluating bidding documents. The VPMU will undertake the procurement of works, goods, and services.

A. Advance Contracting

39. All advance contracting will be undertaken in conformity with ADB's Procurement Guidelines (2010, as amended from time to time)¹⁴ and ADB's Guidelines on the Use of Consultants (2010, as amended from time to time).¹⁵ The issuance of invitations to bid under advance contracting will be subject to ADB for approval. The borrower, executing and implementing agencies have been advised that approval of advance contracting does not commit ADB to finance the project. No retroactive financing is envisaged.

40. Advance action is encouraged to commence the recruitment of the project implementation consultants so that consultants will be mobilized by the second quarter of 2012.

B. Procurement of Goods, Works and Consulting Services

41. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2010, as amended from time to time). Procurement using the government's systems and under national laws for national competitive bidding (NCB) will follow the procedures for NCB set out in the procurement plan.

42. For civil works and plant contracts, four contract packages will be procured by international competitive bidding (ICB) procedures and two by NCB procedures. For goods contracts, a single contract package will be procured by ICB. Goods comprising a vehicle and office equipment will be procured by shopping.

43. ICB procedures will be used for civil works contracts estimated to cost \$1 million or more, and supply contracts valued at \$500,000 or higher. NCB procedures will be used for civil works contracts estimated to cost less than \$1.0 million. Shopping will be used for contracts for procurement of works and equipment worth less than \$100,000.

44. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and NCB guidelines is in Section C. Before the start of any procurement ADB and the Government will review the public procurement laws of the central and state governments to ensure consistency with ADB's *Procurement Guidelines*.

45. All consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time). The consultants for project design, supervision and project management will be engaged using the QCBS method with a standard

¹⁴ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

¹⁵ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

quality:cost ratio of 80:20.¹⁶ The terms of reference for all consulting services are detailed in Section D.

46. An estimated 601 person-months (122 international, 479 national) of consulting services are required to (i) facilitate project management and implementation, and (ii) strengthen the institutional and operational capacity of the executing agency. Consulting firms will be engaged using the QCBS method with a standard quality cost ratio of 80:20, except for the urban development adviser, to be recruited by ADB on a direct selection basis.

C. Procurement Plan

1. Project Procurement Thresholds

47. Except as ADB may otherwise agree, the following process thresholds will apply to procurement of goods and works:

Procurement of Goods and Works	
Method	Threshold
ICB for Works	Above \$1,000,000
ICB for BOT	Above \$1,000,000
NCB for BOT	Above \$1,000,000
ICB for Goods	Above \$500,000
NCB for Works	Between \$100,000 and less than \$1,000,000
NCB for Goods	Between \$100,000 and \$500,000
Shopping for Goods and Works	Below \$100,000

2. ADB Prior or Post Review

48. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project:

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
ICB Works, Goods, Build-Operate-Transfer	Prior	1 st NCB documents only
NCB Works and Goods	Prior	
Shopping for Works and Goods	Post	
Recruitment of Consulting Firms		
QCBS	Prior	Full technical proposal (FTP)
Recruitment of Individual Consultants		
Individual Consultants	Prior	

3. Works Contracts Estimated to Cost More Than \$1 Million and Goods Contracts Estimated to Cost More Than \$500,000

49. The following table lists goods and works contracts using ICB procedures for which procurement activity is either ongoing or expected to commence within the next 18 months.

¹⁶ Checklists for actions required to contract consultants by method available are in the e-Handbook on Project Implementation at <http://www.adb.org/documents/handbooks/project-implementation/>.

General Description	Contract Value	Procurement Method	Prequalification of Bidders	Advertisement Date (quarter/Year)	Comments
Works	4,353,627	ICB	Yes	IV/2012	Tunnel component
Works	17,199,356	ICB	Yes	IV/2012	Road and drainage component
BOT	5,188,669	ICB	Yes	III/2012	Sludge treatment plant

4. Consulting Services Contracts Estimated to Cost More Than \$100,000

50. The following table lists consulting services contracts for which procurement activity is expected to commence within the next 18 months:

General Description	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Design, Supervision and Project Management	4,040,893	QCBS 80:20	III/2011	Both	
Advisory Services	451,539	Individual Recruitment	III/2011	International	2 consultants
Training	1,473,930	QCBS 80:20	III/2011	Both	

5. Works Contracts Estimated to Cost Less Than \$1 Million

51. The following table lists smaller value works contracts for which procurement activity is expected to commence within the next 18 months.

General Description	Value of Contracts (cumulative)	Number of Contracts	Procurement / Recruitment Method	Comments
Works	881,096	1	NCB	Construction of public and community toilets and showers
Works	37,945	1	Shopping	Rehabilitation of public toilets

6. Indicative List of Packages Required under the Project

52. The following table provides an indicative list of all procurement (goods, works, and consulting services) over the life of the project.

General Description	Estimated Value	Estimated Number of	Procurement Method	Domestic Preference
----------------------------	------------------------	----------------------------	---------------------------	----------------------------

	(cumulative)	Contracts	Applicable
Works	22,472,024	4	ICB/NCB/Shopping
BOT	5,188,669	1	ICB
Services	4,492,432	2	QCBS/ICS
Training	1,473,930	4	NCB

7. National Competitive Bidding

53. The procedures to be followed for national competitive bidding will be those set forth in the provisions on competitive bidding in Part 5 (Purchasing Approval and Payment for Goods and Services) of the Public Finance and Economic Management Act No. 6 (1998)¹⁷ with modifications set forth below in order to ensure economy, efficiency, transparency, and broad consistency with the provisions of Section I of the ADB Procurement Guidelines (2010, as amended from time to time) as required by paragraph 3.3 and 3.4 of the Guidelines:

a. Eligibility

54. The eligibility of bidders will be as defined under Section I of the ADB guidelines; accordingly, no bidder or potential bidder will be declared ineligible for contracts financed by ADB for reasons other than those provided in Section I of the guidelines. Foreign bidders will be eligible to participate in bidding under the same conditions as national bidders. In particular, no domestic preference over foreign bidders will be granted to national bidders in bid evaluation, nor will foreign bidders be asked or required to form joint ventures with national bidders in order to submit a bid.

b. Registration

55. Registration will not be used to assess bidders' qualifications. A foreign bidder will not be required to register as a condition for submitting its bid and, if determined to be the lowest evaluated responsive bidder, will be given a reasonable opportunity to register, without any let or hindrance. The registration process will not be applicable for subcontractors. Bidding will not be restricted to any particular class of contractors, and nonclassified contractors will also be eligible to bid.

c. Advertising Time for Bid Preparation

56. Invitations to bid will be advertised in at least one newspaper with national circulation, allowing a minimum of 30 days for the preparation and submission of bids except for commodities and small goods contract. Potential bidders will be allowed to purchase bidding documents any time prior to the deadline for submission of bids.

d. Standard Bidding Documents

57. Standard bidding documents that are acceptable to ADB will be used.

e. Qualification Criteria

58. Qualification criteria will be clearly specified in the bidding documents, and all criteria so specified, and only such specified criteria, will be used to determine whether a bidder is qualified. Qualification will be assessed on a pass or fail basis, and merit points will not be used.

¹⁷ Government of Vanuatu. 1998. *Government of Vanuatu Financial Regulations*. Port Vila.

Such assessment will take into account only the bidder's capacity and resources to perform the contract, specifically its experience and past performance on similar contracts; capabilities with respect to personnel, equipment, and construction and manufacturing facilities; and financial capacity. The evaluation of the bidder's qualifications will be conducted separately from the technical and commercial evaluation of the bid.

f. Bid Submission, Bid Opening, and Bid Evaluation

59. Bidders may submit bids, at their option, in person, by courier service, or by mail. Bids will be opened in public, immediately after the deadline for submission of bids. Bids received after the deadline for bid submission will be rejected and returned to the bidders unopened. All bidding for goods and works will be carried out through a one envelope procedure. Evaluation of bids will be made in strict adherence to the criteria that will be clearly specified in the bidding documents and quantified in monetary terms for evaluation criteria other than price; merit points will not be used in bid evaluation. A contract will be awarded to the technically responsive bid that offers the lowest evaluated price, and no negotiations will be permitted. Bidders will not be eliminated from detailed evaluation on the basis of minor, nonsubstantial deviations. No bidder will be rejected on the basis of a comparison with the employer's estimate and budget ceiling without ADB's prior concurrence. A copy of the minutes of the public bid opening will be promptly provided to all bidders and to ADB with respect to contracts subject to prior review.

g. Rejection of All Bids and Re-bidding

60. Neither will all bids be rejected nor new bids solicited without ADB's prior written concurrence.

h. Extension of the Validity of Bids

61. Extension of the validity of bids may be allowed in exceptional circumstances, but there will be no amendment of the price or any other condition of the bids. Bidders may refuse such an extension without forfeiting their bid securities, but bidders granted an extension will provide extension of the validity of their bid securities.

i. Complaints by Bidders and Handling of Complaints

62. The recipient of the bids will establish and implement an effective and independent protest mechanism allowing bidders to protest and to have their protests handled in a timely manner.

j. Fraud and Corruption

63. ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for, or in executing, a contract financed by ADB.

k. Right to Inspect/Audit

64. Each bidding document and contract financed from the proceeds of a financing will include a provision requiring bidders, suppliers, contractors, and subcontractors to permit ADB, at its request, to inspect their accounts and records relating to the bid submission and

performance of the contract and to have said accounts and records audited by auditors appointed by ADB. The deliberate and material violation by the bidder, supplier, contractor, or subcontractor of such provision may amount to obstructive practice.

D. Consultant's Terms of Reference

65. A total of 601 person-months (pm) of consultants comprising 122 pm of international and 479 pm of national consultants will be required for the following:

- (i) **Project management advice and overall urban development planning support to the executing agency.** The purpose of the advisory will be to provide independent advice to the executing agency, VMPU and implementing agencies to evaluate the outputs of the design, supervision, and project management consultants including feasibility studies, bidding documents, engineering designs, economic analyses, safeguards, monitoring and evaluation, and progress reports. This will consist of 14 pm of international consultants for an urban development advisor and contractual specialist. ADB has been requested by the government to recruit the project adviser for an initial 12-month period for assistance to preparatory activities for the project. The services of the project adviser can be extended for further duration based on need and availability of funds.
- (ii) **Design, supervision, and project management.** This will cover detailed engineering design, supervision, and quality assurance in accordance with relevant design codes, incorporating climate change adaptation measures; definition of employer's requirements; document preparation and support services; procurement activities in accordance with ADB's Procurement Guidelines (2010) and Guidelines on Use of Consultants (2010); construction supervision of the works, plant and goods contracts; financial management and accounting in accordance with ADB's Loan Disbursement Handbook (2007); community consultations and liaison; and implementation of environmental, involuntary resettlement, and indigenous peoples safeguards in accordance with ADB's Safeguard Policy Statement 2009, all for the proposed outputs 1 – 5.

66. The overall objective of the design component of this consultancy services assignment is to provide appropriate detailed engineering designs for outputs 1(a) and (b) and 3(a) and (b); the preparation of performance specifications for the employer's requirements for output 2(d); and drawings, cost estimates, and tender documents for the procurement—in accordance with ADB procurement guidelines—of the subsequent construction works, acquisition of plant and supply contracts.

67. As far as possible, all work is to be undertaken in accordance with design standards and materials specifications in current use in Vanuatu (supplemented or superseded by approved alternatives when necessary) and will generally conform to the requirements of the design codes and code references including, but not limited to:

- (i) Urban Wastewater Treatment Directive of 21st May 1991: 91/271/EEC,
- (ii) Urban Wastewater Treatment Directive: 98/15/EEC,
- (iii) Sludge Reuse in Agriculture Directive: 86/278/EEC, and
- (iv) Energy Cogeneration Directive: 2004/8/EC.

68. All other design processes will conform to internationally recognized standards and practices and will be subject to preapproval by the SC, prior to their adoption. The project will assist IAs to develop specific guidelines for sludgereuse, waste water treatment, energy cogeneration and other environmental guidelines.

69. Prequalification and tender documents will comply with ADB's Procurement Guidelines (2010 as amended from time to time), Guidelines on the Use of Consultants (2010 as amended from time to time), and the Loan Agreement of the project between the government and ADB.

70. The scope of the services will be the preparation of detailed engineering design and performance specifications for the employer's requirements, the development of prequalification and tender documents, and support to the client in tender evaluation.

71. The consultant will perform the engineering, environmental, economic, and financial analyses and associated works described herein in order to attain the stated objectives of the project.

72. The consultant will review all the available documentation from the feasibility study/basic (preliminary) design stage and thereafter be responsible for the analysis and interpretation of the data contained in those earlier reports.

73. During the design phase, the consultant will assist VPMU and relevant agencies in the preparation and implementation of the Resettlement Plan (RP) for output 1 including the affected property survey and finalization of valuation; review, updating, and implementation of the RP under output 2 based on the prepared Resettlement Framework; and review and implementation of output 3(a) in communities. For each output mentioned, the consultant will provide internal monitoring assistance to VPMU. The RP for output 2 and RF for output 1 have been endorsed by the government for posting in ADB website.

74. The main objectives of the consultancy services will include but not necessarily be limited to the following:

1. Design

a. Detailed engineering designs for the Roads and Storm Water Drainage Component, including:

75. Review and verify all available primary and secondary data collected during the project preparatory technical assistance regarding the project;

76. Carry out all the required engineering surveys and investigations such as topographical surveys, geotechnical investigation, construction material survey, groundwater investigation, rainfall data collection, identification of underground utilities, etc, as applicable to the concerned project components. All surveys and investigations will be accurate and plotted for review of the VPMU.

77. Procure an asset management system compatible with MapInfo geographic information system currently used by Union Electrique du Vanuatu (UNELCO) and Telecom Vanuatu Ltd (TVL) for all roads in Port Vila and Efate and storm water drainage systems in Port Vila and transfer to the VPMU on completion of the project. Appropriate training will be provided to the VPMU on its use.

78. Prepare detailed work plan, progress reports, and implementation schedule for the project to ensure effective monitoring and timely project outputs, and regularly update the same.

79. Prepare the engineering designs of the project in sufficient detail to ensure clarity and understanding by the VPMU, contractors and other relevant stakeholders. All the designs should be in conformity with the Vanuatu Standards (if available) or with appropriate international standards.

80. The detailed designs will, as a minimum, include construction drawings; detailed cost estimates; necessary calculations to determine and justify the engineering details for project, and associated contract documentation to include letter of invitation, conditions of contract, condition of particular applications, detailed specifications, engineering drawings, bill of quantities (BoQ), implementation schedule, etc. for the project. The technical specifications should be in accordance with the Vanuatu Standards (if available) or appropriate international practices and should be prepared to achieve the highest standards of quality. For adopting market rates for the detailed cost estimates, proper rate analysis should be carried out. Construction drawings should be prepared with sufficient details to permit contractors to carry out construction work effectively, unambiguously and with the highest standards of quality.

81. The design will be prepared in close consultation with, and to meet the requirements of MIPU and will be incorporated into a detailed design report to be submitted for approval of the SC.

82. Prepare quality assurance and quality control (QA & QC) plans and safety manuals to be followed on the respective construction sites so as to enforce adequate QA & QC, and safety of construction workers, engineers, and citizens.

83. Assist the VPMU in preparing guidelines for contract administration for its day-to-day contract administration requirements such as measurement of works; certification and payment of contractors' bills; release of retention money; approval of variation, time extension, and contractors' claim; issue of completion certificate; financial closure of contract; management during the defects liability period (DLP); etc.

84. Prepare the standard construction management system to be followed by contractors at construction sites comprising important components such as planning of activities (work plan), traffic management and diversions, night and weekend working, procurement of construction material and equipment, construction methodology, deployment of construction machinery, deployment of workers, deployment of funds, etc and implement the same.

85. Prepare prequalification and tender documents using standard ADB tender documents and specific requirements of each project component, with due consideration for ICB & NCB, shopping, etc.

86. Assist the VPMU in issuing tender invitations, addenda/corrigenda, and clarifications of the bidders' queries; receiving of bids and evaluation; award of contract; and signing of contract.

87. Assist the VPMU to set the indicators for the baseline on the project and to carry out the necessary tasks identified by the Project Performance Management System for the project;

88. Prepare updated Initial Environmental Examination (IEE), Environmental Management Plan (EMP), and RP.

89. Support the VPMU in obtaining governmental agencies' approvals of all project components and liaison with public and private sector interests and with the general public.

b. Outline engineering, architectural and operational designs for the sludge treatment facility and biogas plant component, including:

90. Review and verify all available primary and secondary data collected during the PPTA regarding the project.

91. Conduct field investigations including, but not limited to, topographical surveys, terrain model compilation, and soils and materials sampling and testing (by means of surface and subsurface investigation techniques).

92. Carry out outline engineering and architectural designs and the necessary drawings for the preparation of the performance specification for the employer's requirements for the proposed sludge treatment facility and biogas plant in general accordance with the basic (preliminary) design details completed previously.

93. Produce quantity and costs estimates (with unit cost analyses) for the proposed work and present a confidential report.

94. Prepare an updated economic analysis of the outputs as a whole.

95. Prepare functional and performance specifications, and tender documents for the sludge treatment and biogas plant.

96. Prepare tender documents to include for the provision of the biogas plant component as an option and to include criteria to enable the tender evaluation of the least-cost option taking into account base, operation, and maintenance costs. Define damage should the biogas plant fail to generate the stated quantity of electricity for a range of quantity of sludge intake.

97. Support the VPMU in obtaining government agencies' approvals of all project components and liaise with public and private sector interests and with the general public.

c. Detailed engineering designs for the Improved Hygiene Facilities Component, including:

98. Perform field investigations including, but not limited to, topographical surveys and site investigations.

99. Review site selection, based on the due diligence study recommendations prepared during the PPTA, to ensure that communal land is indeed selected and that appropriate community consultation has been conducted during site selection.

100. Prepare detailed engineering designs and necessary drawings for the proposed communal sanitation units in the settlements and central business district public toilet facilities in general accordance with the basic (preliminary) design details completed previously.

101. Estimate quantities and costs (with unit cost analyses) for the proposed work, and present a confidential report.

102. Prepare updated economic and financial analyses of the improved hygiene facilities output.

103. Prepare functional and technical specifications, tender documents, and contract packages of the Improved Hygiene Facilities Component.

104. Support the VPMU in obtaining government agencies' approvals of all project components and liaise with public and private sector interests and the general public.

2. Procurement Support

105. Prepare prequalification tender documents including cost estimates, and support the VPMU in the tender process with the following tasks but not limited to (i) updating the procurement plan and tender process, (ii) organizing and assisting the VPMU with the tender process, (iii) assisting the VPMU in the analysis and evaluation of bids, (iv) assisting the VPMU in contract negotiations, (v) assisting the VPMU in the award of the contract, and (vi) assisting the VPMU in full disclosure of award of contracts.

106. Arrange pre-tender and other meetings related to the tender process, as required.

107. Upon request of the VPMU, arrange other meetings to inform about the project scope and progress.

3. Construction Supervision

108. The main objective of this element of the consultancy service will be to ensure that the works, plant and procurement of goods contracts are carried out in accordance with the respective contracts, specifications, and employer's requirements. The consultant will assist the project adviser to carry out the works and plant contracts, and those of the purchaser's representative in the goods contracts.

109. The consultant assist the VPMU in exercising administrative, technical, and financial control over contractors and suppliers with a supportive and collaborative spirit, without interfering in private processes or exceeding its intervention beyond the point where the normal development of works would be affected. The consultant will provide qualified personnel in each area in order to maintain equilibrium between his/her duties and the contractors' or suppliers'. In addition to his/her obligations defined in the respective works, plant and goods contracts he/she shall carryout all other obligations established in the construction supervision contract.

110. The consultant and contractor are required to conduct consultations and informative meetings with the community and, having listened to their concerns, suggestions, and claims, propose modifications to the works if appropriate.

a. Works Contracts

111. The contractors' activities are to be strictly supervised to ensure that all work is carried out in full compliance with the engineering designs, technical specifications and other contract documents, as well as to effectively assist the employer to carry out its supervision responsibilities. The consultant will be responsible for assisting the employer with the construction supervision of the road, storm water drainage, and hygiene works and will appoint an individual to act as the "Project Manager" as defined in the construction contract documents.

112. During construction supervision, the Project Manager may delegate some authority to a site resident engineer as defined in the contract documents. The consultant's site supervisory team will have the appropriate professional skills as mentioned in the job descriptions. Their scope of activities will generally be as follows:

- Assist the employer in all activities required of the Project Manager in the administration and execution of the construction contract in accordance with conditions of contract.
- Verify and approve subcontracts.
- Approve of contractor's proposed replacement staff.
- Reject the contractor's staff.
- Approve the contractor's insurance policies and certificates.
- Clarify queries on the special conditions of the contract.
- Approve the work's program.
- Approve the contractor's temporary works specifications and drawings.
- Instruct the contractor concerning the applicable laws.
- Extend the intended completion date if a compensation event occurs or a variation is issued that involves the contractor in acceleration or additional cost to achieve the intended completion date.
- Obtain priced proposals for completion before the intended completion date.
- Instruct the contractor to delay the start or progress of any activity.
- Request management meetings.
- Record the business of management meetings and define responsibilities for action.
- Require the contractor to provide an estimate of the expected effect of a future event or circumstance on the contract price and completion date. Cooperate with the contractor and instruct actions to avoid or reduce the impact.
- Check the contractor's work and notify any defects.
- Assess the cost of defects not corrected within the time specified.
- Adjust the rate where the final quantity of work differs from the bill of quantities by more than 25% and the change exceeds 1% of the initial contract price.
- Request the contractor for a detailed cost breakdown of any rate in the bill of quantities as appropriate.
- Request the contractor for a quotation for carrying out a variation.
- If the contractor's quotation is unreasonable, order the variation, and change the contract price based on his/her forecast of the effects.
- Check the contractor's monthly statement, certify the amount due, and maintain full and complete records of progress payments.
- Assess the impact of compensation events on the contract price and/or the intended completion date.

- Adjust the contract price due to changes in taxes, duties, and other levies changed as appropriate.
- Certify when all notified defects have been corrected.
- Correct overpayment of liquidated damages as appropriate.
- Certify that the works are complete when complete even if prior to the intended completion date.
- Ascertain that the advance payment has been spent specifically for the execution of the contract.
- Issue written instructions in advance of any small additional works are to be carried out on day works.
- Carry out final inspections of the works and, when satisfied, issue the certificate of completion of the works.
- Check the contractor's final accounts and certify them as correct for payment or, if unsatisfactory, decide the amount payable.
- Carry out inspections of the works prior to the end of the defects liability period and issue the defects liability certificate once any outstanding defects are corrected.
- Provide such information as is necessary for the contractor to set out the works and check that the setting out is correct.
- Through inspectors of works and other site staff as may be required, supervise the day-to-day operations of the contractor to ensure quality of workmanship and compliance with the contract, including day-to-day monitoring of environmental compliance.
- Oversee and verify laboratory and field tests undertaken by the contractor during the construction period.
- Maintain detailed daily diaries, photographs, and documents concerning relevant events and activities; call and keep minutes of routine site meetings between the parties to the contract.
- Review for accuracy the "as built" drawings prepared by the contractor for all the works and translate such documents into a format suitable for the employer's asset management system.
- Prepare progress reports for the contract in a form acceptable to ADB and the employer. These reports will include, as a minimum, details of the physical and financial status of the contract, details of delays, and the budgetary effects of particular problems with suggested solutions.
- Prepare completion reports in a form acceptable to ADB and the employer.
- Advise the employer with respect to carrying out the works following any appeal to arbitration or litigation related to the Works.
- Provide any other specialized services as may be necessary and agreed upon.
- Confirm project accomplishments by the contractor as well as control project costs.
- Notify in advance if any amendments of the contract are required.

- Receive the works and terminate contracts.
- Confirm if contractors have made the corresponding payments to their employees.
- Confirm safety standards of the contractors' employees.
- Prepare the following documents if necessary: minutes of kick-off meeting, works suspension, works restarting, works liquidation, etc.
- Verify policies required by the contractor, and advise in a timely manner of due date and/or renewal date.
- Keep supervision files.
- Perform other tasks or activities, determined by the employer, oriented towards improving quality of supervision and efficient management of data collected during studies.
- Review and supervise the works scope and methodology applied to develop them. Review and approve partial and final reports in addition to layouts, schedules, study plans, etc.
- Check work zones in order to ensure that roadway use is duly approved by competent authorities.
- Witness field works and workshop works (performed at the factory).
- Evaluate the contractors' failure to comply and recommend to the employer the appropriate penalties to be imposed to the contractor.
- Send copies of all communications to the employer.
- Verify that information required by the contractors is appropriately presented.
- Verify the presentation of calculation logs prepared by the contractors to determine if criteria are clearly explained, if consulted sources are specified, and also the assessment and the weighed percentage procedures so that the employer may be able to validate the information at any time.
- Verify work quantities and budget.
- Calculate log of work quantities.
- Prepare works basic plan.
- Collaborate with contractors to successfully achieve the objectives and maintain close contact with the employer's representatives regarding works status, contract development, supplies, and all other activities included in the works scope and relationship development between consultant and contractors, which shall be notified in a timely manner and reported periodically.
- Require the fulfillment of the contract and the specifications by constantly watching over works execution and overseeing trials and tests required to ensure work quality.
- Approve materials and equipment.
- Evaluate and submit the corresponding support of substantial changes during works development (sequence of activities, design changes, and specifications, equipment to be used, general safety and control measures, and those that affect the works development or that could give rise to claims from contractors, contracting parties, or

others) to be approved by the employer. If necessary, the employer will assign personnel to help with the assessment or will accept the consultant's request of having special advisors to conduct the supervision. This condition will not exonerate the consultant's liability.

- Submit the required information, layouts, and documents of the project to contractors in a timely manner, and keep them informed about any changes made.
- Provide the project starting points to the contractors so that project works under development might be properly located regarding alignment and levels as per references supplied by the employer.
- Review and approve topographic redesigns made by contractors.
- Review, approve, and control periodic work plans prepared by contractors.
- Solve the contractor's questions about layouts, specifications, tests, and trials.
- Watch over that technical and administrative organizations of the contractors are appropriate to ensure the proper execution and fulfillment of the subscribed contract.
- Establish an appropriate control over the employer's resources (supplies) provided to the contractors according to the development of works in order to assure good management, proper surveillance, preservation, and integration of consumption elements to the worksite. In addition to the above, a transfer protocol for equipment and machinery movements inside and outside the work site will be requested from the contractors in accordance with prevailing laws, and fulfillment of this request shall be confirmed.
- Supervise and inform in a timely manner about personnel and supplies required for the works, demanding the contractors to hire qualified technical personnel and dismiss any employee that in his/her or the employer's judgment is careless, incompetent, insubordinate, or his/her job is harmful to the interests of the employer.
- Maintain a journal record of the most important incidents, the meteorological conditions, any unexpected events and special instructions given to contractors.
- Maintain complete records to create a historical log of works under development including correspondence and reports submitted to the employer, which could serve as support for any issue that may come up in regards to the contract during execution or after termination.
- Confirm that during the kick-off meeting, each contractor will provide to the Project Manager the following documents:
 - Quality plan
 - Work schedule and investment flow
 - Certifications and curricula of minimum staff
 - Signaling plan
 - Environmental management plans
 - Resettlement and land acquisition plans
 - Any other requirements for the works contract

These documents are necessary to sign the kick-off meeting minutes and will have the Project Manager's previous approval. Follow up should be done during the contract development to confirm fulfillment.

- Prepare new and complementary studies and designs, and also redesigns required to develop the works to achieve the project objective.

b. Plant Contracts

113. The consultant will undertake the duties of the Project Manager. He/She shall supervise and manage the contract on behalf of the employer with the intention of achieving the employer's objectives for the completed contract. The Project Manager will strictly supervise the contractor's activities to ensure that all work is carried out in full compliance with the engineering designs, technical specifications, and other contract documents, as well as to assist the employer in carrying out its responsibilities.

114. During installation of the facilities, the Project Manager may delegate some to a site resident engineer. The consultant's site supervisory team will have the appropriate professional skills as mentioned in the job descriptions. Their scope of activities will generally be as follows:

- Assist the employer in all activities required of the Project Manager for the contract (as defined in the contract) in the administration and execution of the contract in accordance with the conditions of contract. Maintain full and complete records of progress payments.
- Review/approve the contractor's technical documents, site regulations, etc., to the extent required by the contract; advise on modifications where necessary and review/approve these proposals.
- Review and Approve the contractor's program of performance and, where necessary, request revisions of this to account for the current status of the design, manufacture, transport, assembly, installation and precommission of the facilities, to ensure adherence to the program of performance.
- Attend tests and/or inspections, or with the approval of the employer, appoint internationally recognized inspection agencies to attend tests and/or inspections, as specified in the contract.
- Require the contractor to carry out any test and/or inspection not required by the contract.
- Provide such information as is necessary for the contractor to set out the works and check that the setting out is correct.
- Issue appropriate instructions where errors appear in the position, level, or alignment of the facilities.
- Review the contractor's applications for payment certificates and advise the employer on their correctness.
- Make recommendations to the employer on the contractor's claims for additional payment, extension of time, and other matters, based on the consultant's interpretation of the contract documents, the relevant site conditions, and the contractor's detailed submissions.

- In the event of change to the facilities being required, prepare the necessary documents, negotiate these with the contractor, and submit these to the employer for approval.
- Through inspectors of works and other site staff as may be required, supervise the day-to-day operations of the contractor to ensure quality of workmanship and compliance with the contract, including day-to-day monitoring of environmental compliance.
- Maintain detailed daily diaries, photographs, and documents concerning relevant events and activities; call and keep minutes of routine site meetings between the parties to the contract.
- Review for accuracy the “as built” drawings prepared by the contractor for all the works, and translate such documents into a format suitable for the employer’s asset management system.
- Prepare progress reports for the contract in a form acceptable to ADB and the employer. These reports will include, as a minimum, details of the physical and financial status of the contract, details of delays, and the budgetary effect of particular problems with suggested solutions.
- Witness the precommissioning of the facilities and either notify the contractor in writing of any defects and/or deficiencies or issue a completion certificate.
- Attend the commissioning, including the guarantee test, and advise and assist the employer.
- Check the contractor's final accounts and certify them correct for payment.
- Prepare completion reports in a form acceptable to ADB and the employer;
- Issue instructions to the contractor prior to the expiry date of the relevant defects liability period to assign the benefits of any subcontractor where appropriate.
- Advise the employer with respect to carrying out the works following any appeal to arbitration or litigation related to the works.
- Provide any other specialized services as may be necessary and agreed upon.

c. Goods Contracts

115. The consultant will undertake the duties of the purchaser’s representative, supervising and managing the contract on behalf of the purchaser with the intention of achieving the purchaser’s objectives for the completed contract. The supplier’s activities will be strictly supervised to ensure that all goods and related services comply with the technical specifications and other contract documents.

116. The consultant’s supervisory team will have the appropriate professional skills as mentioned in the job descriptions. Their scope of activities will generally be as follows:

- Assist the employer in all activities required of the purchaser as defined in the contract. Maintain full and complete records of progress payments.
- Review/approve the supplier's technical documents to the extent required by the contract, advise modifications where necessary, and review/approve these proposals.

- Review and approve the supplier's program of performance and, where necessary, request revisions of this to account for the current status of the manufacture, transport, and delivery of the goods, to ensure adherence to the program of performance.
- Attend tests and/or inspections, or with the approval of the employer, appoint internationally recognized inspection agencies to attend tests and/or inspections, as specified in the contract.
- Require the supplier to carry out any test and/or inspection not required by the contract.
- Review the supplier's applications for payment certificates and advise the purchaser on their correctness.
- Make recommendations to the purchaser on the supplier's claims for additional payment, extension of time, and other matters based on the consultant's interpretation of the contract documents, the relevant site conditions, and the supplier's detailed submissions.
- In the event of change to the facilities being required, prepare the necessary documents, negotiate these with the supplier, and submit these to the purchaser for approval.
- Maintain detailed daily diaries, photographs, and documents concerning relevant events and activities; call and keep minutes of routine site meetings between the parties to the contract.
- Review for accuracy the "as built" drawings prepared by the supplier for all the goods, and translate such documents into a format suitable for the purchaser's asset management system.
- Prepare progress reports for the contract in a form acceptable to ADB and the purchaser. These reports will include, as a minimum, details of the physical and financial status of the contract, details of delays, and the budgetary effect of particular problems with suggested solutions.
- Check the supplier's final accounts and certify them as correct for payment.
- Prepare completion reports in a form acceptable to ADB and the purchaser.
- Advise the purchaser with respect to carrying out the works following any appeal to arbitration or litigation related to the works.
- Provide any other specialized services as may be necessary and agreed upon.

4. Organization and Staffing

117. The consultant will be required to assist the employer with evaluation of bids for all works, plant and goods contracts and all subsequent activities leading up to mobilization of the selected contractors and suppliers. The site supervision team will be mobilized on the date of actual commencement. During the defect liability period, the consultant will continue on a part-time basis, and the supervision team members will remain available on an as-required, intermittent basis. After the end of the defect liability period, the consultant is expected to need 2 months to close the contract.

118. The consultant's team should include key specialists and should specify additional support personnel. The types of consultancy services, required inputs, prerequisite qualifications and duties and responsibilities are summarized in Tables 8 and 9 for the international and national consultants, respectively.

Table 8: International Consultants

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
1. Urban development adviser	12	Master's degree in urban planning with at least 15 years of relevant experience in planning, designing, and implementation of urban infrastructure, particularly roads, drainage, and sanitation works.	<ul style="list-style-type: none"> • Provide impartial technical and general contractual advice to the VPMU where the VPMU has to take action under any of the consultancy, works, goods, and plant contracts of the project. • Participate in all technical meetings with the design, procurement, and supervision consultant; and all progress meetings with the works, goods, and plant contractors. • Advise the VPMU where action is required to satisfy the covenants and assurances of the ADB Loan Agreement. • Coordinate the production of all reports to be submitted by the VPMU/government to ADB. • Advise the VPMU when specialist legal or technical inputs are required.
2. Contract specialist	2	Master's degree in law and/or finance with at least 15 years experience in evaluating, awarding, and management of civil works contracts, preferably roads, drainage, and sanitation related infrastructure.	<p>Will be member of the dispute board federation or similar legal federation, and will provide advice to the VPMU where</p> <ul style="list-style-type: none"> • the VPMU has to take action under Clause 8 of ADB's Standard Form of Contract for Consultants Services; or • action of the Project Manager in the supervision of the works, goods, and plant contracts could lead to disputes being referred to adjudication or arbitration.
3. Team Leader/ Project Manager	30	Master's degree in engineering with 15 years of relevant experience of designing and construction of roads, storm and flood water drainage and sanitation related infrastructure and at least five years experience in senior management position. Experience of working in the	<ul style="list-style-type: none"> • Overall administrative, technical and financial responsibility of the project, and over contractors and suppliers. • Ensure that the works, plan and procurement of goods contracts for the construction of roads, storm and floodwater drainage and sanitation related infrastructure are carried out in

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		Pacific area will be desirable.	accordance with the respective contracts, specifications and requirements.
4. Sludge Treatment Plant Process Engineer	4	Master's degree in engineering or public health engineering with at least 10 years of experience in designing, construction supervision, and management of similar treatment plants.	<ul style="list-style-type: none"> • Responsible for the overall design, construction supervision and management of the sludge treatment plant. • Ensure that activities related to the engineering, architectural and operational designs of the sludge treatment plant and biogas plant component, such as verification of data, conduct of field investigations, and preparation of engineering and architectural drawings based on preliminary design details conform to appropriate construction and environmental standards.
5. Quality Control Engineer	5	Master's degree in civil engineering with at least 10 years of relevant experience of production of precast concrete, materials testing, and supervision of contractors. Experience of working in the Pacific area will be an added qualification.	<ul style="list-style-type: none"> • Prepare quality assurance (QA) and quality control (QC) plans and safety manuals that will be followed in respective construction sites. • Enforce adequate QA and QC, and safety of construction workers, engineers, and citizens. • Responsible in the production of precast concrete, materials testing, and supervision of contractors, as may be necessary.
6. Drainage Engineer	6	Master's degree in civil engineering with at least 10 years of experience in designing, implementing, and supervision of drainage and sanitation disposal systems. Experience in the construction management of similar works in the Pacific area will be an added qualification.	<ul style="list-style-type: none"> • Ensure the efficient implementation of the drainage component of the project including but not limited to designing and construction supervision of drainage outfalls and sanitation facilities. • Prepare technical documents and specifications, and community consultation.
7. Roads Engineer	6	Master's degree in civil engineering with at least 10 years of designing, construction supervision, and managing roads engineering projects. Experience of working as resident engineer and working on similar construction works in	<ul style="list-style-type: none"> • Ensure the efficient implementation of the roads component of the project in association with the drainage engineer. • Design roads, prepare technical documents and specifications. • Supervise construction and

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		the Pacific area will be desirable.	management of road projects. <ul style="list-style-type: none"> • Conduct field investigations and community consultations.
8. Mechanical Engineer	4	Master's degree in mechanical engineering with not less than 10 years professional experience including 7 years specific experience in designing and supervising wastewater treatment plants.	<ul style="list-style-type: none"> • Prepare the required drawings of the sludge treatment plant and biogas plant, and their performance specifications based on preliminary design details and in accordance with appropriate construction and environmental standards • Work with the electrical engineer for the associated electrical requirements of the plants.
9. Electrical Engineer	4	Master's degree in electrical engineer with not less than 10 years professional experience including 7 years in the Pacific region with specific experience in the design, operation and supervision of electrical system in industrial plants.	<ul style="list-style-type: none"> • Prepare the design, and oversee the operation of the electrical system of the sludge treatment plant and biogas plant. • Determine the plants' electrical requirements and performance specifications based on preliminary design details and in accordance with appropriate electrical standards. Closely work with the mechanical engineer for the associated mechanical requirements of the plants.
10. Procurement Specialist	6	Master's degree in business and/or accounting with at least 15 years of professional experience in preparing bids and tender documents, and familiarity with procedures/regulations of ADB and other major funding agencies. Experience should include working in developing countries particularly in the Pacific.	<ul style="list-style-type: none"> • Provide procurement support to the VPMU. • Assist in preparing prequalification tender documents including cost estimates. • Update the procurement plan and tender process • Provide support to the VPMUU in the evaluation of bids, and contract management and administration.
11. Tunnel Engineer	3	Master's degree in civil engineering with at least 10 years of professional engineering experience in design and construction of small-bore drainage tunnels.	<ul style="list-style-type: none"> • Design and construct small bore drainage tunnels, taking into account improvement of pollution control in the design of drainage outfalls. • Undertake the required engineering surveys and investigations applicable to the drainage component of the project.
12. Quantity Surveyor	9	Master's degree in civil engineering with at least 10	<ul style="list-style-type: none"> • Prepare quantity and cost estimates with unit cost analysis

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		years experience as quantity surveyor/measurement engineer of infrastructure projects. Candidates with experience of working in the Pacific area will be preferred.	for the proposed works. <ul style="list-style-type: none"> • Prepare bill of quantities in consultation with the other technical specialists. • Assist the procurement specialist in the preparation of tender documents.
13. Financial Management Specialist	8	Master's degree in business and/or financial management with at least 10 years professional experience including 7 years specific experience on international development projects. The specialist will help to establish financial management systems for the project in accordance with the requirements of ADB and the rules and regulations of the Government of Vanuatu as well as provide training to relevant staff in revenue collection, accounting, financial reporting, and budgeting. Experience working in the Pacific area will be desirable.	<ul style="list-style-type: none"> • Help establish financial management systems for the project in accordance with the requirements of ADB and the rules and regulations of the government. • Provide training to relevant staff in revenue collection, accounting, financial reporting, and budgeting. • Work with the other technical specialists of the project in developing appropriate options for an effective tariff structure and O&M financing plan.
14. Environmental Safeguards/ Climate Change Adaptation Specialist	4	Master's degree or higher in environmental science, climatology, or other natural sciences. At least 10 years relevant project experience in environmental management and monitoring for ADB Safeguards compliance. Demonstrated expertise in and familiarity with climate change adaptation and mitigation. Demonstrated experience conducting training, workshops, and other mentoring activities. Familiarity with processes of environmental regulatory and policy reform. Relevant project experience in and familiarity with CDM, carbon costing, and other economic instruments to promote climate change mitigation. Familiarity with water quality monitoring and analytical procedures. Experience of working in the Pacific area will be desirable.	<ul style="list-style-type: none"> • Responsible for strengthening the capacity of VPMU, and other relevant agencies on environmental management. • Undertake on the job training to safeguards agency staff to ensure that safeguard programs are in place at the conclusion of the project. • Conduct training, workshops and other mentoring activities. • Provide advise on environmental regulatory and policy reforms, carbon costing and other economic instruments to promote climate change adaptation. • Facilitate and supervise the implementation of the EMP.

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
15. Community Liaison and Resettlement Safeguards Specialist	4	Master's degree in social sciences with at least 10 years experience in social and gender development, preferably on development projects related to public health or primary health care and hygiene, including HIV/AIDS, preferably in a developing country at the community level. Experience of working in the Pacific area will be an added qualification.	<ul style="list-style-type: none"> • Ensure that all resettlement and land acquisition and impacts on community and business interests are avoided. • Ensure that ADB SPS 2009 will be enforced such as on: <ol style="list-style-type: none"> (i) provision of assistance to vulnerable affected persons/displaced persons, if any identified, so that their living standards are the same as, or wherever possible, better than pre-project levels; (ii) recognition of resettlement impacts and risks; (iii) implementation and updating of the resettlement plan that will require a significant level of community participation and consultation; and (iv) ensuring that internal monitoring and evaluation program is set up for the resettlement plan.
16. Gender and Community Mobilization/ Training Specialist	4	Master's degree in social sciences with at least 10 years in monitoring and evaluation of development projects, with at least three years experience in the Pacific.	<ul style="list-style-type: none"> • Ensure that gender-related concerns are incorporated into any project planning and implementation activities. • Develop a training program for gender sensitization for the implementing and other relevant agencies
17. Traffic Management Specialist	3	Degree in civil engineering with at least five years of experience in traffic flow research, traffic flow management, and drafting traffic rules and regulation.	<ul style="list-style-type: none"> • Work with traffic engineering experts and traffic police department in developing schemes for improving traffic flow, reducing traffic congestion on motorways, improve road safety. • Identify parking spaces and basis for parking fees. • Conduct community consultations while recommending traffic flows.
18. Hygiene and Sanitation Promotion Specialist	2	Master's degree in public health or a medical degree with specialization in community medicines. S/He should have 5 years experience of working with communities and promoting health, sanitation,	<ul style="list-style-type: none"> • Responsible in developing awareness workshops, campaigns and information and education and dissemination programs on hygiene, health and sanitation.

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		and hygiene awareness programs.	
19. O&M Specialist	2	Post graduate degree in economics or an MBA with finance as major subject, and has experience of estimating user charges for different types of users, and developing business models and projected cash flows. Experience of preparing public-private investment plan will be an added qualification.	<ul style="list-style-type: none"> • Formulate cost recovery and tariff structure. • Prepare a long term O&M financing plan, including sustainability and in the utilization of O&M budget for the project assets in consultation with development partners, key government agencies and the private sector and based on lessons learned from other similar projects and for wider application. • Identify specific models of outsourcing for O&M that will among others look at public private partnerships and community and civil society participation as well as labor-based approaches.
20. Project Performance Monitoring and Evaluation Specialist	4	Master's degree in social sciences, management information systems (MIS) or in a relevant field with at least 10 years in monitoring and evaluation of development projects.	<ul style="list-style-type: none"> • Develop and implement a project benefit and monitoring and evaluation (PBME) framework and system including collection of gender-specific data and information to ensure effective monitoring and reporting of project outputs. • Conduct training and advisory services for the implementation of a project performance evaluation and monitoring system. • Closely work with PWD and Statistics Office in developing a monitoring and evaluation system.
Total inputs (pm)	122		

Table 9: National Consultants

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
1. Deputy Team Leader	41	Master's degree in urban planning with at least 10 years relevant experience in planning, designing, and implementation of urban infrastructure, particularly roads, drainage,	<ul style="list-style-type: none"> • Closely work with the team leader/project manager and coordinate the activities of the other specialists in the team to ensure the effective implementation of the project

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		and sanitation works.	<ul style="list-style-type: none"> • Act as the focal person who will liaise with government, public and private sectors, and the general public on the project outputs and components particularly on roads, drainage and sanitation.
2. Civil Engineers	68	Bachelor's degree in civil engineering with minimum of 5 years of professional engineering experience of construction supervision and quantity measurement of civil works. Experience of working on roads, drainage, sludge treatment facility, and hygiene structures will be an added qualification.	<ul style="list-style-type: none"> • Prepare bill of quantities and detailed specifications. • Determine availability of civil work materials in the local market. • Closely work with other technical specialists for the construction of roads and drainage infrastructure, sludge treatment plant and toilet facilities.
3. Mechanical and Electrical Engineer	20	Bachelor's degree in electrical/mechanical engineering with a minimum of 5 years of professional experience in designing, construction and supervision of mechanical and electrical components of the sludge treatment facility and hygiene structures.	<ul style="list-style-type: none"> • Act as the site resident engineer for the sludge treatment plant, biogas plant and toilet facilities. • Closely work with the international electrical and mechanical engineers on the electrical and mechanical components of the plants and toilet facilities.
4. Gender and Community Development Specialist	12	Bachelor's degree in social sciences with at least five years of experience in community mobilization, working with rural communities, and at least three years experience with INGOs and/or NGOs.	<ul style="list-style-type: none"> • Assist in ensuring that gender-related concerns are incorporated into any project planning and implementation activities. • Facilitate awareness workshops and awareness dissemination materials and campaigns specifically in rural communities. • Establish gender-disaggregated indicators for project performance and monitoring. Report the progress and monitor the implementation of GAP activities.
5. Social, Poverty, and Resettlement Specialist	12	Bachelor's degree in social sciences with at least five years of experience in preparing resettlement plans, valuation of assets, assessment of incidence of poverty, and experience in supervising and facilitating resettlement of	<ul style="list-style-type: none"> • Prepare and update resettlement plans. • Undertake valuation of assets. • Assess incidence of poverty, and facilitate resettlement of communities. • Assist in monitoring the implementation of the

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		communities. Experience of working with INGOs and/or NGOs will be desirable.	resettlement plan. <ul style="list-style-type: none"> • Assist in conducting community consultations in the project sites.
6. Environmental Specialist	36	Bachelor's degree in the relevant field with at least five years experience of evaluation and monitoring of environmental interventions, and familiarity with environmental safeguards procedures.	<ul style="list-style-type: none"> • Assist the environmental safeguards/climate change adaptation specialist in facilitating and supervising the implementation of the EMP. Identify resolutions to and monitor environmental issues. • Evaluate environmental interventions. • Assist in ensuring compliance to environmental safeguards procedures. • Assist in the conduct of training and capacity development.
7. Monitoring and Evaluation Specialist	24	Bachelor's degree in the relevant field with minimum of five years of experience in monitoring and evaluation of infrastructure and social upliftment interventions.	Closely work with the project performance monitoring and evaluation specialist in: <ul style="list-style-type: none"> (i) developing a monitoring and evaluation system for the project; (ii) conduct of training and provision of support services for the implementation of the PBME; and (iii) conduct of baseline surveys.
8. Training Specialist	30	Master's degree in education with at least five years experience in conducting training in skills development, management of community based infrastructure, organizing workshops, and designing awareness campaigns and outreach initiatives. Experience of working with NGOs and/or INGOs will be preferred.	<ul style="list-style-type: none"> • Develop a comprehensive training package and/or capacity development programs for relevant government departments, development partners, local non-government organizations, domestic private sector, and the business community. • Develop approaches and methodology to facilitate conduct of training package. • Design awareness campaigns and outreach initiatives. • Conduct training needs assessment.
9. Hygiene and Sanitation Promotion Specialist	12	Bachelor's degree in public health or a medical degree with specialization in community medicines. S/He should have five years experience of working with communities and promoting health, sanitation, and hygiene awareness	<ul style="list-style-type: none"> • Assist the international hygiene and sanitation specialist in developing awareness workshops, campaigns and information and education and dissemination programs on hygiene, health and sanitation. • Conduct community consultation.

Project Consultant	Required Input (pm)	Prerequisite Qualification	Duties and Responsibilities
		programs. Experience of working with NGOs and/or INGOs will be preferred.	<ul style="list-style-type: none"> • Develop community-based training programs on hygiene and sanitation.
10. Administrator	32	Degree in public administration, and have at least 10 years experience in office management, logistic support, and supervising support staff.	Provide the required administrative support to the project in terms of office management, logistics, and supervising support staff.
11. Accountant	60	Degree or certificate in accounting and at least 10 years of experience in managing accounts and auditing in a reasonable size institution. The candidate should be computer literate and familiar with accounting programs.	<ul style="list-style-type: none"> • Manage the accounts of the project on site. • Prepare ledgers of accounts and accounting reports and ensure that appropriate reports are submitted in accordance with the approved schedule and ADB requirements.
12. Works Supervisors	108	Diploma or certificate in civil engineering with minimum seven years experience in supervising civil works, measurements, and valuation.	<ul style="list-style-type: none"> • Act as on-site technical specialists responsible for the day to day supervision of project activities and construction workers. • Maintain detailed daily diaries, photographs, and documents concerning relevant events and activities. • Coordinate on-site activities, ensure that on-site policies and procedures are observed. • Conduct on-site meetings as may be necessary
13. Topographical Surveyors	24	Diploma or certificate in civil engineering with minimum five years experience in conducting topographical surveys in the Pacific region.	<ul style="list-style-type: none"> • Undertake topographical surveys, terrain model compilation for map making and cost estimation. • Conduct field investigations to ensure accuracy of information specifically measurements.
Total inputs (pm)	479		

5. Reporting Requirements

119. The consultant will prepare and submit to the client 10 copies of each of the following reports for each contract. Electronic copies should be also provided as requested.

a. Inception Report

120. The consultant will prepare an inception report 2 months after the start of the project, and this will serve as the first and second month progress reports. The inception report should flag any issues that the consultant has identified or anticipated that require an early intervention by the employer, the supervising agency (ADB), or other agencies for their successful resolution and will summarize the steps taken to mobilize the team.

b. Feasibility Studies

121. Feasibility studies will be prepared to assess subproject viability in terms of economic and engineering due diligence, climate change adaptation, and initial poverty and social assessments.

c. Monthly Reports

122. The consultant will prepare, at the end of each month, a brief progress report summarizing the work accomplished by the supervision team during the reporting period. The report will also outline any problems encountered (administrative, technical [including environmental], or financial) and give recommendations on how these problems may be overcome. A brief summary of the progress of the contracts will be prepared outlining problems encountered and recommended solutions.

d. Safeguard Reports, including Environmental Management Plans, Resettlement Plans, and Monitoring Reports

123. The consultant will prepare Resettlement Plans and monitoring reports, as required and as per the SoW, which are compliant with the ADB Safeguards Policy Statement (2009) and Laws of Vanuatu. These will be prepared with the executing agency and submitted by the executing agency to ADB with no objection.

e. Quarterly and Periodic Reports, and Midterm Review Position Paper

124. The consultant will prepare a comprehensive report summarizing all activities of the project at the end of each quarter, and at other times when considered necessary by either the consultant or the employer because of delays in the contracts or the occurrence of technical or contractual difficulties.

125. Such reports will summarize not only the activities of the consultant but also the progress of the contracts; all contract variations; change orders; the status of contractor claims, if any; brief descriptions of the technical and contractual problems being encountered; and other relevant information for all the ongoing contracts. The quarterly report will also summarize training activities and the performance by Vanuatu staff of supervision activities.

f. Final Completion Reports

126. The consultant will prepare a comprehensive final completion report for each contract when it reaches a stage of substantial completion during the period of the services. This report, which must be submitted immediately after the provisional handover of the contract, will summarize the method of construction, where appropriate; the construction supervision performed; recommendations for future projects of similar nature to be undertaken by the employer, summarizing the construction activities; total effect of contract changes; and claims, disputes, or any other substantive matters having an effect on the amount, cost, and progress of the work.

6. Staffing

127. The consultant's team should include the key specialists identified in Tables 11 and 12. Additional support personnel should be specified by the consultant. The prerequisites and indicative duration of each of the proposed key staff are also given in Tables 11 and 12.

7. Assistance to be Provided by Client

128. In connection with work by the consultant that requires the cooperation of all government agencies, the government will arrange liaison and will ensure that the consultant has access to all information as may be allowed by law for the performance of these services. This will include

- copies in both hard copy and electronic form of all of the documents that comprise the contract with the selected contractor;
- a hard copy of the feasibility study / basic (preliminary) design information undertaken during 2010 and 2011 including all appendixes and subconsultant's field investigation reports; and
- written comments and/or approval of all reports submitted by the consultant; comments will be issued to the consultant with 14 days of the relevant report being submitted to the client.

129. In addition, unless otherwise specified in the special conditions of the contract governing the assignment, the employer will use its best effort to ensure that the government will do the following:

- Issue to officials, agents and representatives of the government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services.
- Provide the consultant, subconsultants, and personnel with work permits and such other documents as will be relevant and necessary to enable the consultant, subconsultants or personnel to perform the services.
- Facilitate entry and exit visas for the international staff and their dependents.
- Facilitate prompt clearance through customs of any property required for the services and of the personal effects of the personnel and their eligible dependents.
- Assist the consultant and the personnel and any subconsultants employed by the consultant for the services to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity according to the applicable law.

8. Consultant's Financial Proposal

130. The consultant's financial proposal should allow for all costs in providing their services for the detailed engineering designs, employer's requirements, preparation of prequalification and tender documents, and management support, including assistance in the tender process, and construction supervision of the works, plant, and goods contracts as detailed in this TOR.

VII. SAFEGUARDS

131. **Environment.** The project is classified as environmental category B. MFEM, as the executing agency, will have overall responsibility for the project's compliance with safeguard requirements. MFEM will also coordinate on staff requirements for audit of safeguard activities with relevant government agencies, including the Ministry of Lands and Natural Resources and the Department of Environmental Protection and Conservation (DEPC), as needed. The VPMU will manage the day-to-day activities, including safeguard activities. The VPMU will implement the environmental and social safeguards activities to be supported by an international Safeguards Specialist and a national consultant.

132. The Safeguards Specialists will be skilled in both social and environmental safeguards and will be responsible for strengthening government's capacity in environmental management and social development, including undertaking on-the-job training and supporting MIPU and safeguards agency staff so that at the conclusion of the project they are able to carry the safeguards programs through into MIPU systems. The international Safeguards Specialist, along with the national consultant, will facilitate and supervise the implementation of the Environmental Management Plan (EMP), which will include (i) revising the construction section of the EMP, attaching the EMP to the bid and contract documents, and pricing implementation of the EMP in the bill of quantities in bidding documents; (ii) reviewing and approving the contractor's EMP; (iii) training of MFEM technical staff and contractors in implementing the EMP and monitoring requirements; and (iv) undertaking compliance monitoring of the EMP. The safeguards budget for personnel and operational support, which includes both the social and environmental requirements for 5 years, has been included in the project cost. The government will second safeguards staff from relevant agencies for implementation of safeguards activities in an appropriate and timely manner. The IEE for the project has been prepared and endorsed by the executing agency.

133. The potential environmental impacts of the proposed project have been evaluated. The more prominent impacts that are expected to arise as a result of the project actions are (i) increased traffic, and restricted access during construction; (ii) possible impairment of land values and functions in those areas where aggregate and sand are extracted for construction use; (iii) near-shore discharges of sediment and pollutants along with storm water drainage runoff; (iv) impairment of coastal water quality as a result of drainage discharges; and (v) effects that are related to climate change. A number of the adverse impacts that might occur are considered moderate or minor, and none of the impacts are considered major. While negative impacts of the project are expected to be insignificant, these will nevertheless be carefully monitored and adequately mitigated. The identified potential adverse impacts of project actions, the magnitude of the impacts, and the mitigation measures that will be applied to reduce the impacts, are presented in Table 13.

134. While some minor adverse effects, as described above, may occur, overall, the project is expected to produce substantial environmental and socioeconomic benefits, which include, among others:

- reduced incidence of standing water and flooding on roads within Port Vila;
- reduced road hazards due to flooding and poor road conditions;
- reduced erosion and sediment runoff, thus improving water quality in the coastal environment;
- reduced risk of waterborne and vector borne diseases as a result of both (a) elimination of standing water, and (b) improved sanitation facilities and practices; and

- improved environment for tourism and other investment activities.

135. The project will retain an international environmental management/climate change adaptation/monitoring specialist on a part-time basis, and a national environmental officer on a full-time basis. The focus of these consultants will be on the identification, resolution, and monitoring of environmental issues, and on training and capacity development of personnel specifically within DEPC.

136. The project's IEE was prepared. Its EMP will be used to guide environmental mitigation, monitoring, and reporting. Table 14 outlines the major actions associated with the preparation, submission, and approval of environment documents within the government and to ADB.

137. The project is classified as Category B for **involuntary resettlement**. An RP has been prepared for the STP that requires acquisition of 6.5 hectares of land. The rehabilitation of the road and drainage network is not expected to require acquisition of land. As all works will be undertaken within existing road corridors, RF has been prepared to address any impacts that may arise during implementation. The community sanitation facilities will be located on respective community communal land, and due diligence under the PPTA has confirmed that there will be no land acquisition and resettlement issues under this component. The RF and RP have been endorsed by the government and posted on ADB's website.

138. Inhabitants of the subproject sites are indigenous and are the main beneficiaries. No adverse impacts on indigenous peoples are expected, so an indigenous people's plan is not required. The project has been classified as category C for **indigenous peoples**.

Table10: Summary of Impacts

Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
PRECONSTRUCTION PHASE						
Project design activities	Impacts on sensitive areas due to poor site selection Greenhouse gas (GHG) emissions impacts and nonadaptive features of infrastructure could result if climate proofing not incorporated	<ul style="list-style-type: none"> Ensure all measures incorporated in design are implemented 	●		●	
Site clearance, digging, excavations	Accidental discovery of archaeological assets, sites, or resources	<ul style="list-style-type: none"> Cease activity immediately Inform Vanuatu Cultural Council archaeologists; follow all actions required by archaeologists 	●			●
Site preparation, vegetation removal	Minor loss of vegetation during demarcation	<ul style="list-style-type: none"> Minimize vegetation removal Train construction workers about restrictions on vegetation removal, and general environmental protection Compensate affected persons (APs) for trees or other vegetation that is removed 	●			●
Land acquisition, changes in land use	Loss of former productive uses, economic losses	<ul style="list-style-type: none"> Compensate APs for loss of productive use of land and resources 				●
Mobilization of contractor, presence of construction workers, associations with local people	Social disruption	<ul style="list-style-type: none"> Site office and works yard established in consultation with authorities and land owners/users Village protocols discussed; worker awareness as part of mobilization Contractor to ensure workers actions are controlled and village rules, code of conduct observed Appropriate signage and security is implemented at project sites 	●			●
	Spread of sexually transmitted infections (STIs) and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS)	<ul style="list-style-type: none"> Implementation of awareness and prevention program – contractor Implementation of HIV/AIDS awareness and prevention program – community (villages) 	●			●

Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
CONSTRUCTION PHASE						
Operation of construction vehicles generating emissions	Emission of exhaust from vehicles and machinery Road dust	<ul style="list-style-type: none"> • Maintain construction equipment • Prohibition of use of equipment that causes excessive pollution (e.g., generates smoke) • Vehicles transporting dust-producing material not overloaded, provided with tail-boards and side-boards, and adequately covered • Material stockpiles located in sheltered areas and to be covered • Damping down of the road during the dry season • Periodic air quality monitoring 	●			●
	Noise	<ul style="list-style-type: none"> • Maintain construction equipment • No use of heavy equipment between 9 pm and 5 am in residential areas • Prepare and adhere to a schedule of operations • Provide noise abatement equipment to workers • Provide mechanism for addressing noise-related complaints in grievance procedures 	●			●
	Access and traffic	<ul style="list-style-type: none"> • Prepare traffic management plan • Provide adequate protection to the general public in the vicinity of work sites, including advance notice of commencement of works, and installation of safety barriers and signage or other markers • Inclusion of a contract clause specifying measures to minimize traffic disruptions • Engage in consultation with appropriate community representatives, in the event that access has to be disrupted and to arrange temporary access • Avoid use of construction equipment in off-road areas • Regularly clear debris, soil, and any other material from roadways • Provide safe access across construction sites to people whose access to homes or businesses is temporarily affected during construction 	●		●	
Site clearance, digging, excavation	Accidental discovery of archaeological assets, sites, or resources	<ul style="list-style-type: none"> • Cease activity immediately • Inform Vanuatu Cultural Council archaeologists; follow all actions required by archaeologists 	●			●

Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
Works in or adjacent to rivers, streams, water protection zones, and coastal areas	<p>Disturbance of ground and sediments</p> <p>Erosion of riverbanks, foreshore, and in coastal zone</p> <p>Effects on river structure including (i) changes to river water flows, including levels and velocity; (ii) changes to channel depth, structure, and location resulting from excavations; and (iii) changes to riverbanks</p> <p>Reduction in river and coastal water quality</p>	<ul style="list-style-type: none"> • Movements of vehicles and machinery within coastal habitats will be minimized • Repair of or compensation for damage to slopes, beaches and mangroves by contractor • Monitoring of embankments, coastal slopes, and other sensitive features during construction • Revegetation of open ground, especially on slopes • Proper disposal of spoils, rubbish, or any other construction material; no disposal within any beaches, mangroves, or other coastal sites • Suitable tip sites to be designated in consultation with land owners and community leaders • Reuse of construction materials (e.g., excavated road bitumen) where feasible • Use of silt control devices and sediment traps/fences during works, to be cleaned and dewatered • Temporary structures removed on completion of works and riverbed restored • Avoid clearing activities during rainy season where possible • Stones and rocks kept on hand for use in bank or channel stabilization • Gabion baskets, rock rip-rap, or bioengineering methods to be used for embankments and for coastal protection/stabilization • No unplanned or unpermitted discharges to rivers, surface waters, intertidal areas, or coastal areas • Spoils and stockpiles will not be located near the coast, on slopes, or within 15 m of rivers • Placement of diversion ditches around stockpiles • No removal of mangroves • Storage of fuel, oil, other chemicals in secure tanks or containers away from coast • Approved disposal of wastewater • All rules applying to protection of water supply sources protection zone to be strictly followed • Baseline marine biological monitoring conducted 	●			●

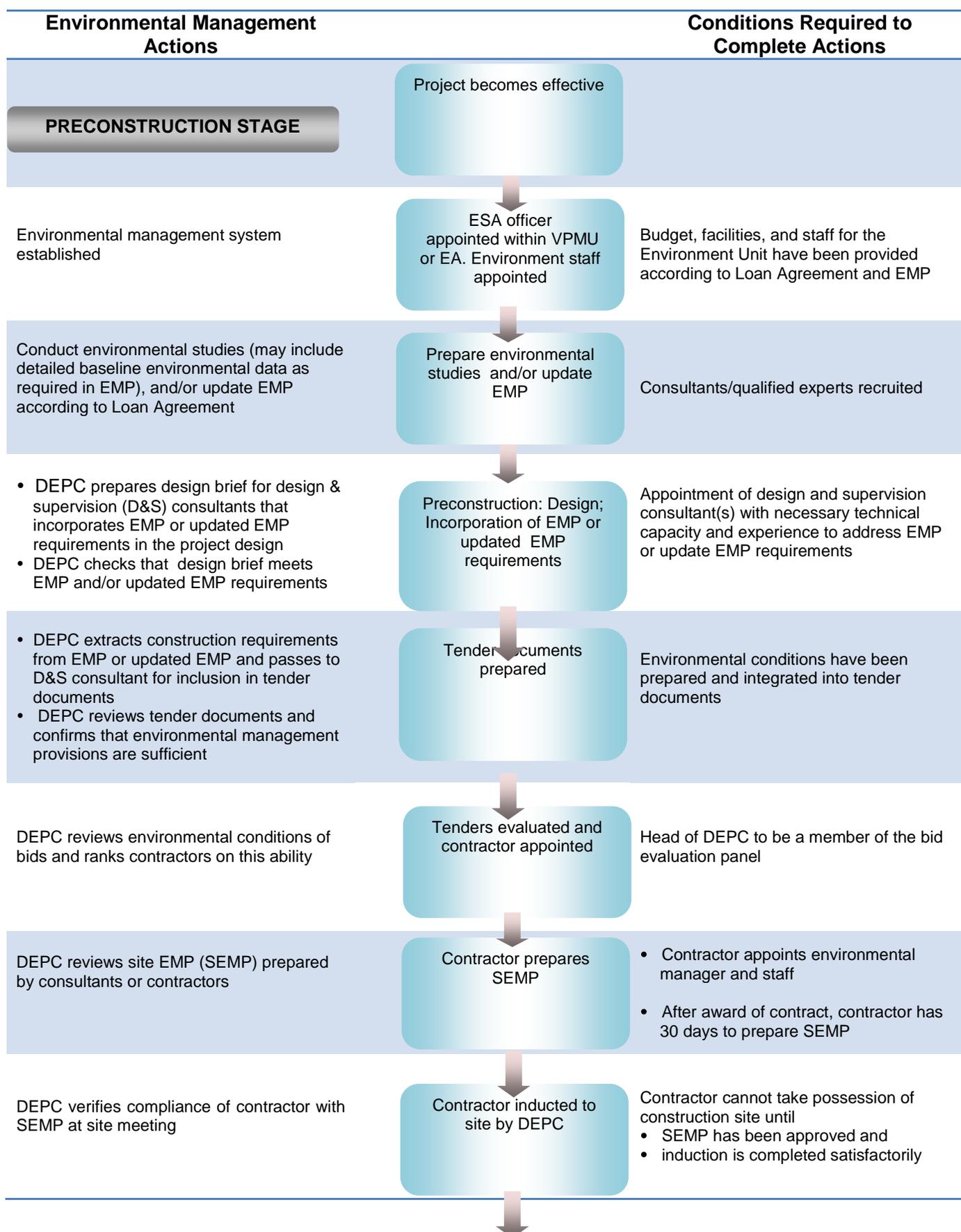
Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
		prior to construction, regular periodic monitoring conducted thereafter				
Aggregate and sand extraction	Removal of beach sand undermines shoreline, changes littoral drift, and accelerates erosion Extraction from quarries or borrow pits leaves unusable land, exposes water table, attracts rubbish dumping, and reduces visual values	<ul style="list-style-type: none"> Existing quarries will be used wherever possible and appropriate Extraction of beach sand not permitted under project guidelines Extraction from ecologically sensitive areas (inter-tidal, swamp, or mangrove areas) or productive land is not permitted Preparation and implementation of extraction plan (with limits to volumes extracted from any one source) in accordance with guidelines Materials not extracted from river beds or other sensitive areas All extraction sites to be rehabilitated after use Topsoil is preserved and replaced during rehabilitation 	●		●	
Accidental spills of hazardous substances and need for emergency response	Oil and other hazardous chemicals are spilled into the environment resulting in pollution Hydrocarbon leakage or spills from construction camps and workshops Accidents placing people at risk	<ul style="list-style-type: none"> Emergency response plan (as part of EMP) prepared by contractor to cover hazardous materials/oil storage, spills and accidents Chemicals will be stored in secure containers away from the coast, surface waters, and r rivers Chemicals stored in area or compound with concrete floor and weatherproof roof Spills will be cleaned up as per emergency response plan Ensure that all construction vehicles and plant are well maintained Accidents reported to DEPC within 24 hours 	●			●
Encroachment into sensitive natural areas, disturbance of marine and terrestrial habitats, effects on flora and fauna	Impacts on fisheries and fishery grounds Direct impacts on coral reefs, mangroves, and seagrass beds Runoff and rivers carry turbid waters to coral reefs Terrestrial habitats become fragmented	<ul style="list-style-type: none"> Measures to be taken to minimize erosion and silt and sediment transport Discharge of surface runoff into ecologically sensitive receiving waters to be avoided by diversion or other available means Mangroves not to be felled, removed, or damaged Vegetation clearance to be kept to minimum; avoid felling of roadside trees wherever possible 	●			●

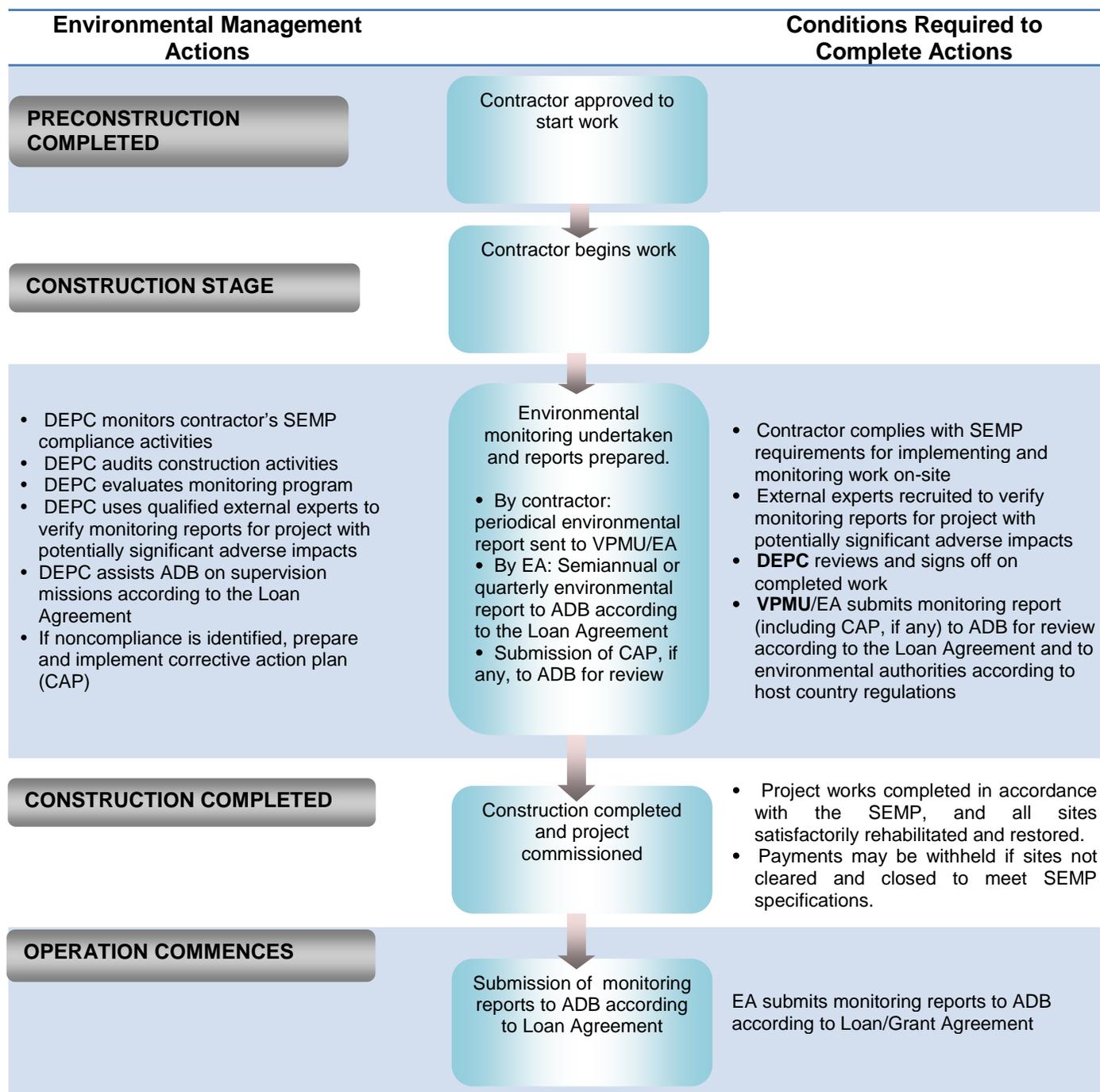
Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
	Workers poach animals for food or feathers, etc Protected or sensitive areas affected	<ul style="list-style-type: none"> Contractor responsible for information and sanctions regarding harm to wildlife and felling of trees Stockpiles and equipment not stored in ecologically important or sensitive areas Progressive revegetation to be carried out in all areas disturbed by the project with fast-growing, native species 				
Encroachment into historical / cultural sites	Effects on cultural values; cultural or archaeological sites will be affected by the subproject	<ul style="list-style-type: none"> No known cultural sites or archaeological resources are located within the project area or close enough to be influenced by it Accidental discovery dealt with as per provisions 	●			●
Presence of construction workers	Various social impacts including (i) social disruption; (ii) possibility of conflicts or antagonism between residents and workers; (iii) spread of communicable diseases including STIs and HIV/AIDS; (iv) children are potentially exposed to exploitation Impacts on workers and public health and safety	<ul style="list-style-type: none"> Most laborers to be locally sourced and housed Village protocols discussed and worker awareness as part of mobilization process Contractor to ensure workers' actions and work site are controlled Workers to respect village and landowner boundaries, and community practices and traditions Signage and security, i.e., prohibition on unauthorized people (especially children) entering site office and works yard STIs and HIV/AIDS awareness program through approved service provider for workers and communities A communications and complaints plan will be used for liaison and correction among stakeholders Contractor to appoint environment and safety officer Contractor to provide health facilities and first aid post in site office and to provide safety equipment for workers Any damage to property and resources promptly repaired or compensated Contract documents will include provisions for ensuring that the poor, local people, and women are encouraged to participate in workforce and will receive fair wages No child labor to be used 	●			●

Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
OPERATIONS PHASE						
Operation of sludge treatment facility	Discharge of noxious gases such as methane (CH ₄), hydrogen sulfide (H ₂ S), ammonia (NH ₄), carbon dioxide (CO ₂), sulfur dioxide (SO ₂) and nitrogen oxides; bad odors; associated health risks	<ul style="list-style-type: none"> • Treatment facility is sufficiently distant from inhabited and built-up areas • Prevailing winds will usually blow gases at the site away from built-up areas • Capture of methane for cogeneration of energy will minimize emissions 	●			●
	Increased noise from pumps, blowers, dryers	<ul style="list-style-type: none"> • Equipment fitted with noise-reducing mufflers as required • Maintain equipment in good working order • Provide earplugs to workers 	●			●
Operation of street sweeping equipment	Dispersal of dust into atmosphere	<ul style="list-style-type: none"> • Watering of road surfaces during sweeping 	●			●
	Increased noise	<ul style="list-style-type: none"> • Equipment fitted with noise-reducing mufflers as required • Maintain equipment in good working order • Provide earplugs to workers 	●			●
Regular maintenance operations	Traffic disruptions	<ul style="list-style-type: none"> • Maintenance conducted according to preannounced schedule, and during off-peak hours • Reductions in street flooding achieved through infrastructure improvements should help to improve traffic flow 	●			●
Actions resulting in siltation, erosion, and impacts to soil	Generation of increased sediments; accidental spillage of fuel or oil on the ground	<ul style="list-style-type: none"> • Ensure that all culverts and drainage structures are adequately maintained so that debris does not build up, causing waters to divert from the intended path of flow, resulting in severe erosion and loss of land • Ensure that roadways are free of excessive debris through regular cleaning and street-sweeping • Ensure that road surfaces are watered during street-sweeping operations to control fugitive dust • Ensure that oil separators within drainage system are maintained in good functional order • Ensure that stockpiles of materials used for maintenance and repair work are not placed where they could be accidentally dispersed by water or wind • Ensure that fuel oil and other hazardous materials are properly stored and handled 	●		●	

Project Activities / Actions	Environmental Impacts	Mitigation Measures	● = No Significant Effect with Mitigation	Level of Impact without Mitigation		
				Major	Moderate	Minor
		<ul style="list-style-type: none"> • Ensure that workers are familiar with emergency spill response procedures, and that these are effectively applied when needed • Awareness of the value of maintaining vegetation cover will be undertaken 				
Discharge of sludge and drainage effluents, operation of septic tanks	<p>Water quality in surface waters and nearshore areas affected by sediments, contaminants, nutrients etc.</p> <p>Possible impacts on coastal biota</p>	<ul style="list-style-type: none"> • Anticipated improvements in runoff water quality due to better infrastructure • Passage and enforcement of drainage and sanitation act • Effective maintenance of septic tanks, sludge treatment facility, drainageways • Water quality monitoring for effluents and for near-shore areas • Marine/coastal biological monitoring 	●		●	
Climate change issues	<p>GHG emissions through operation of sludge treatment facility</p> <p>Possible increased sediment transport due to increasing intensity of rainfall</p> <p>Possible effects of sea level rise or increased water table height</p>	<ul style="list-style-type: none"> • Operation includes implementation of cogeneration at sludge treatment plant to reduce GHG emissions • Maintenance of drainageways ensures self-flushing function • Tidal flaps maintained in good working condition • Septic tanks maintained in good working condition to prevent leakage and flooding 	●		●	

Table 11: Preparation, Submission, and Approval of Environmental Documents





CAP	- corrective action plan
D+S	- design + supervision
EA	- executing agency
EMP	- environmental management plan
DEPC	- Department of Environmental Protection and Conservation
SEMP	- site environmental management plan

VIII. GENDER AND SOCIAL DIMENSIONS

139. Women play an important role in economic life in Vanuatu, particularly in the rural sector, where more women than men are engaged in subsistence agriculture. In addition to growing food and cash crops, women contribute to the rural economy through the processing and sale of home produce such as clothing, baskets, mats, and handicrafts. Women are increasingly active in the retail sector in rural and urban areas, including the management of markets, shops and stalls. As women are the main users of water and responsible for family health, the project will take into account women's voices for drainage systems and communal sanitation facilities in the urban and periurban settlements, including their administrative roles in the implementation of these facilities. The project will empower women through capacity development activities.

140. The project's Gender Action Plan (GAP) will be implemented by the VPMU, which will hire a community development/gender specialist in the project team. The specialist will be responsible for incorporating the GAP into project planning and programs, including awareness workshops and establishment of gender-disaggregated indicators for project performance and monitoring. The VPMU will include reporting on the progress of GAP activities in regular progress reports on overall project activities to ADB and the government. Other consultants may be hired to implement different GAP activities under the guidance of the community development/gender specialist.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Urban development of Port Vila is sustainable</p>	<p>By 2020: 50% decrease in damage from floods, to public and private infrastructure and properties, and number of affected people</p> <p>Avoid additional 4,200 tons of CO₂ per annum by end of 2015</p>	<p>Reports of relevant government and nongovernment institutions</p> <p>Designated National Agency report on CDM projects</p>	<p>Assumption The government is committed to providing basic urban services.</p> <p>Risk The government is unable to provide in its national budget the required costs to provide the delivery of basic services.</p>
<p>Outcome The Government of Vanuatu has sustainably improved hygiene situation and reduced water-based hazards in Port Vila.</p>	<p>The government maintains its initial budget commitment of \$400,000 per annum for maintenance works</p> <p>By mid 2017: 75% of households within the urban and periurban areas in Port Vila have access to improved sanitation (2009 baseline less than 50%).</p> <p>Incidence of diarrhea in Port Vila reduced by half from 892 reported cases per 1,000 population (WHO data).</p> <p>At least 20% decrease in travel time (2010 baseline is 2 minutes per km), and 0.5% decrease in vehicle operations costs (2010 baseline is \$0.20 per km)</p>	<p>Reports of MFEM and MIPU</p> <p>Reports of PVMC, MoH, Statistics Office</p> <p>Reports of PVM, MoH, WHO data</p> <p>Commuter survey and traffic survey data from MIPU and Statistics Office</p>	<p>Assumptions The government is committed to provide budget for operation and maintenance of project assets.</p> <p>Transparent procedures followed in processing maintenance contracts of project assets and in accordance with existing laws</p> <p>The government is fully committed to operate and maintain the drainage and sanitation facilities established by the project.</p> <p>The drainage and sanitation facilities are adequately climate-proofed.</p> <p>Solid wastes are adequately managed.</p> <p>Risk No effective anti-corruption strategy or action plan</p>
<p>Outputs</p>	<p>By mid 2017:</p>		<p>Assumptions</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
1. The Government has improved the road network and drainage system in greater Port Vila.	1.1 Approximately 22 km of road rehabilitated 1.2 25 km of underground piped drain installed 1.3 8 km of surface drainage open channels; 0.65 km of tunnel; and +/- 7.0 km ² area drained in 5 drainage basins 1.4 No. of seasonal flooding problems in the 5 catchment areas reduced to zero per year .	Reports of PWD and PVMC Reports of PWD and PVMC Reports of PWD and PVMC Reports of PWD and PVMC	Proper coordination among concerned government departments and roles clearly delineated on project implementation Relevant institutions are adequately staffed and equipped with the required expertise on sanitation and drainage.
2. The Government has improved the sanitation system in greater Port Vila.	By mid 2017: 2.1 100% of septic tanks desludged at the sludge treatment plant	Reports of PWD and PVMC	The government continues to support the biogas component of the project.
3. Central area and settlement communities use improved hygiene facilities.	3.1 Conditions of 10 public toilets improved in 8 rural and periurban areas and in the central business district 3.2 50% of community sanitation facilities are operated by women's groups in the project area (currently none are operated by women's groups) 3.3 About 4,500 households served with improved sanitation (baseline in 2010 is 20%)	Reports of PWD, MoH, WHO data, Statistics Office Reports of PVMC, community and user groups Reports of MoH, WHO data, Statistics Office, user survey	Appropriate private entrepreneurs identified and sufficient resources allocated for operation of the biogas component. The biogas project will be registered with CDM Executive Board (EB) under UNFCCC Risks Infrastructure capital and maintenance costs may not be affordable and the government may not be able to maintain the assets.
4. Government agencies and community and user organizations have the capacity manage sanitation, roads, and drainage systems effectively and efficiently.	4.1 At least 50 government staff (50% being women) improved to manage and maintain sanitation, roads, and drainage facilities 4.2 Drainage maintenance follows 100% annual maintenance schedule 4.3 100% of community sanitation facilities comply with sanitation standards at anytime 4.4 100 women are trained in management of sanitation and hygiene facilities and maintenance activities.	Reports of relevant government institutions, community and user groups, and women's and youth groups Reports of MIPU/PWD, relevant community and user groups, and women's and youth groups User survey, report of MoH, MIPU/PWD Reports of relevant community and user groups, and women's and youth groups, user survey	Lack of progress on policy and institutional reforms. Weak and fragmented institutional arrangements may lead to poor coordination and follow-up on the government's role in project implementation. The government may not be prepared to implement a system of sustainable financing mechanisms.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
5. Efficient project management services are provided.	5.1 Project is implemented on time and within budget.	Reports of PVMC	<p>Delay in land acquisition for sludge treatment plant</p> <p>Delay in project getting registered with CDM EB due to validation issues</p> <p>Delay in procurement due to lack of capacity</p> <p>Insufficient data monitoring and reporting</p>
<p>Activities with Milestones</p> <p>1.1 Implement roads and drainage improvement and maintenance program. (by Q1 2017)</p> <p>1.2 Surface/reconstruct roads, curbs, intersections, footpaths, and road features, based on the urban road renewal project preliminary design study. (by Q1 2017)</p> <p>1.3 Construct new storm water drainage systems in the highest priority flood-prone areas together with new channels. (by Q1 2017)</p> <p>2.1 Design and construct a sludge treatment and disposal facility. (by Q4 2015)</p> <p>2.2 Draft operational procedures in the removal, transport, and treatment of sludge from septic tanks to the sludge treatment and disposal facility. (by Q2 2015)</p> <p>2.3 Develop operational guidelines based on sustainable drainage systems (SUDS) principles and techniques. (by Q4 2016)</p> <p>2.4 Design and construct a biogas plant. (by Q4 2015)</p> <p>2.5 Develop a CDM project for carbon credits. (by Q4 2015)</p> <p>3.1 Conduct a survey of areas that need improved hygiene facilities. (by Q3 2013)</p> <p>3.2 Consult women's groups on site selection and design of sanitation facilities and maintenance activities. (by Q3 2013)</p> <p>3.3 Construct 10 multipurpose, multi-user sanitation facilities (toilet, washing and bathing facilities) in identified villages and periurban settlements. (by Q2 2014)</p> <p>3.4 Upgrade, rebuild, or refurbish existing public toilets in the city center and those located at major sporting facilities. (by Q2 2014)</p> <p>3.5 Develop approach and methodology on and conduct awareness raising, information dissemination, and education related to health and hygiene. (by Q2 2015)</p> <p>4.1 Conduct needs assessment for capacity building programs. (by Q4 2012)</p> <p>4.2 Support DEPC to (i) initiate policy discussions and dialogues with user groups with respect to treatment of wastes; (ii) establish strong partnerships with the business community; and (iii) oversee follow through activities to ensure early compliance to appropriate disposal and treatment of wastes. (by Q2 2015)</p> <p>4.3 Design a comprehensive training package in contract management, O&M, and roads development including planning and monitoring, and gender mainstreaming in hygiene and sanitation. (by Q1, 2017)</p> <p>4.4 Prepare a sanitation and drainage maintenance plan. (by Q2 2013)</p> <p>4.5 Develop mechanisms for private sector participation in the O&M of sanitation and hygiene facilities. (by Q2 2014)</p> <p>4.6 Develop appropriate fiscal options and revenue collection system for project-</p>			<p>Inputs</p> <ul style="list-style-type: none"> • ADB: \$5.00 million • Government: \$3.10 million • CFA: \$5.39 million • Government of Australia project grant: A\$25.61 million

Activities with Milestones	Inputs
established roads, drainage, sanitation, and hygiene facilities. (by Q2 2014) 5.1 Provide timely progress reports until completion of the project. (until 2017) 5.2 Develop and implement a PBME and gender-sensitive project management framework. (by Q3 2013) 5.3 Provide training and advisory services on project administration. (by Q2 2014)	

CDM = clean development mechanism, CFA= Channel Financing Agreement between Government of the Commonwealth of Australia and ADB, DEPC = Department of Environmental Protection and Conservation, MIPU = Ministry of Infrastructure and Public Utilities, MoE, Ministry of Education, MoH = Ministry of Health, O&M = operation and maintenance, PBME = project benefit monitoring and evaluation, PPTA = project preparatory technical assistance, PVMC = Port Vila Municipal Council, PWD = Public Works Department, UNFCCC = United Nations Framework Convention on Climate Change, WHO = World Health Organization

B. Monitoring

141. **Project performance.** Within 3 months of loan effectiveness, MFEM through the VPMU will establish a project performance and monitoring system. The government and ADB will agree on a set of indicators for monitoring and evaluating how well the project achieves its goals and purposes. These indicators will be refined and monitored during project implementation. The indicators will include data for monitoring economic development, change of road and drainage improvements, sanitation improvements, biogas generation and reduction in CO₂, socioeconomic development, environmental impact, maintenance, and institutional development. Monitoring and evaluation will be based on gender-disaggregated data for social and poverty impact indicators.

142. The VPMU will provide hands-on training to MFEM staff and national consultants in data collection, monitoring, and evaluation. MFEM through the VPMU will monitor and evaluate the indicators according to the agreed upon framework on a quarterly basis to determine the efficiency and effectiveness of the project. Disaggregated baseline data for output and outcome indicators gathered during project processing will be updated and reported quarterly and after each review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.¹⁸

143. The project will engage an international and a national project performance monitoring and evaluation specialist who will provide guidance to the VPMU in developing and establishing an effective monitoring and reporting systems and processes. They will work closely with PWD and Statistics Office in developing a monitoring and evaluation system. The project will consider additional support based on the system that will be developed in the early part of project implementation. Baseline surveys will be undertaken at the start of project implementation, and all indicators in the GAP will be continuously monitored and reported. These will be included in the VPMU quarterly reports and project monitoring reports. A midterm review will be carried out, and a project completion report will be undertaken at project end.

144. The SC will oversee the supervision and coordination of the project and will meet at least every quarter.

145. **Compliance.** This will be monitored through regular quarterly progress reports and during regular review missions.

¹⁸ ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltooland>

146. **Environmental.** An EMMP has been prepared that shows the impacts, mitigation measures, monitoring requirements and responsibilities of the various persons or agencies that need to be addressed during the design/preconstruction, construction, and operation phases. During preconstruction, monitoring of these activities will be carried out by the Environmental Specialist in the VPMU. The specialist will be responsible for ensuring that the issues that are to be addressed are implemented as required in the EMMP.

147. During construction, the contractor will have the initial responsibility for self-monitoring its work, which will be undertaken according to the contractor's SEMP. The contractor will appoint a person on its team who will have overall responsibility for ensuring that the SEMP requirements are complied with. Included as part of his/her contract supervision responsibilities, the Resident Engineer will supervise and monitor the contractor's work including compliance with the SEMP and direct the contractor accordingly. The Environmental Specialist will support and assist the Resident Engineer in monitoring the contractor's work. The Environmental Specialist will also independently monitor the construction activities and will issue defect notices for noncomplying work to the contractor via the Resident Engineer.

148. Each month the contractor will prepare a brief report on compliance with the SEMP, which will be sent to the Resident Engineer and the Environmental Specialist. The Environmental Specialist will review the report and attach any additional information such as monitoring and forward the report to the Project Manager. The Project Manager will arrange for the monthly report to be (i) copied to DEPC, and (ii) included in a semiannual report to ADB.

149. **Involuntary resettlement.** Although most of the works will be undertaken at the locations of existing facilities, there may be a requirement for some additional land acquisition that may require development of a resettlement plan. If changes in conditions result in acquisition of land or resettlement for civil works, the government will inform ADB and prepare a resettlement plan in accordance with laws and regulations; ADB's *Safeguard Policy Statement* (2009) and the RP and RF. The VPMU will ensure that no construction activities begin until ADB has reviewed and approved the RP. The VPMU will monitor and report quarterly through progress reports to ADB and stakeholders

150. **Indigenous peoples.** Native Melanesians, who comprise the vast majority of the population, are the indigenous people of Vanuatu. The project is not expected to have a negative impact on indigenous peoples that would trigger ADB's *Safeguard Policy Statement* (2009). The project is categorized as indigenous peoples Category C; therefore no monitoring is required.

151. **Gender and social dimensions.** Action plans pertaining to social, gender, and poverty issues will be implemented, monitored, and reported by the VPMU as required by the respective action plans and the design and monitoring framework (DMF).

C. Evaluation

152. Soon after the loan is approved, ADB will field an inception mission to agree with MFEM on a checklist of implementation requirements of the projects as well as discuss in detail the procedures relating to procurement of works and goods, recruitment of consultants, and disbursements. The government and ADB will undertake semiannual reviews of the project to consider in detail the (i) scope of the project, (ii) implementation arrangements, (iii) compliance with loan and grant covenants, (iv) physical achievements against targets and milestones, and (v) project implementation issues requiring resolution or action. The midterm review, to be done

after 2 years of the loan effectiveness date, will examine in detail the implementation progress and project design (institutional, administrative, organizational, technical, environmental, social, poverty reduction, resettlement, economic, and financial aspects), and identify courses of action that would improve project performance, viability, and the achievement of targets and project objectives. All the assumptions and risks noted in the DMF will be reviewed. Within 6 months of physical completion of the project, MFEM will submit a project completion report to ADB.¹⁹

153. ADB will undertake a project completion review of the project 2 years after its physical completion date. The project completion report will evaluate the processing and design of the project by both ADB and the borrower among others. It will assess and evaluate (i) performance of the borrower and executing agency in managing and implementing the project, and in complying with ADB's guidelines, policies, practices, procedures, and loan covenants; and will evaluate project costs, disbursements, and institutional improvements; (ii) the performance of consultants, contractors, and suppliers with respect to services, construction, supply, delivery, and installation; (iii) problems encountered during implementation and the effectiveness of measures to resolve them by the borrower, executing agency, and ADB; (iv) whether the borrower, executing agency, and ADB monitored progress effectively in comparison with quantifiable and monitoring targets; (v) the financial and economic performance of the project at its initial stage of operation; and will compare this with the qualified indicators in the DMF and project performance report; (vi) the project's transition to operations, and identify any remedial measures needed; (vii) future operation and maintenance schedules to ensure sustainability of the project; (viii) any other steps that the borrower and executing agency need to take to ensure the project's sustainable operation; (ix) the performance of the monitoring and evaluation system established for the project and reexamine the indicators selected for monitoring operations and assessing development impact; (x) significant environmental and poverty reduction impacts (including socio-cultural impacts when applicable) of the project; and will evaluate the implementation and effectiveness of any environmental control measures, resettlement plans, and poverty reduction measures; and (xi) whether the immediate development objective has been met as well as the likelihood of attaining the long-term development goal.

D. Reporting

154. MFEM with the assistance of VPMU will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicators' performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that the project continues to be both viable and sustainable, project accounts and the associated auditor's reports should be adequately reviewed.

E. Stakeholder Communication Strategy

155. During implementation a communication strategy and communication plan will be prepared that will indicate the types of information, means of communication, who will provide, and to whom, including at what intervals, to the stakeholders about the project as well as its implementation.

¹⁹ Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

X. ANTICORRUPTION POLICY

156. ADB reserves the right to investigate, directly or through its agents, any violations of the *Anticorruption Policy* (1998, as amended to date) relating to the project.²⁰ All contracts financed by ADB will include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.²¹

157. To support these efforts, relevant provisions are included in the loan agreement/regulations and the bidding documents for the project. Procurement will follow ADB's *Procurement Guidelines* (2010, as amended from time to time), consultant selection will adopt ADB's *Guidelines on the Use of Consultants* (2010, as amended from time to time), and disbursement will be made in accordance with ADB's disbursement policies, guidelines, practices, and procedures.

158. To ensure transparency and good governance, MFEM will publicly disclose the use of the loan and grant proceeds on the government's website. For each procurement contract, MFEM will disclose (i) the list of participating bidders, (ii) the name of the winning bidder, (iii) basic details on the bidding procedure adopted, (iv) the amount of the contract award, (v) the list of goods or services purchased, and (vi) the intended and the actual amount of loan and grant proceeds under each contract. MFEM will see to it that all of its consultants, contractors, and staff are fully aware of, and comply with, the procedures of the government and ADB, including those for implementation, procurement, use of consultants, disbursements, reporting, and prevention of fraud and corruption. The borrower will prepare an anticorruption strategy and action plan for agencies involved in the tender evaluation and contractor selection processes, and establish a complaints mechanism. MFEM will support anticorruption efforts and transparency through consultation on major project decisions regarding reforms, and subproject selection and implementation.

²⁰ Available at <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²¹ ADB's Integrity Office web site is available at <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

159. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.²²

160. A procedure for managing complaints and problems will be established by VPMU to (i) review and redress grievances and complaints of project stakeholders in relation to the project, any service provider, or any person responsible for carrying out the project; (ii) set the threshold criteria and procedures for handling such grievances, for proactively addressing them, and for notifying stakeholders about the mechanism or course of action chosen; and (iii) maintain the records on the above.

²² For further information see: <http://compliance.adb.org/>.

XII. RECORD OF PAM CHANGES

161. 9 November 2011: 1st draft.