

The Government of the Republic of Vanuatu
 Queensland Government



**COMPETENCY TRANSFER 2003
 PROJECT**

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Web Sites

Vanuatu	www.vanuatuatoz.com/index.html
Welcome to Vanuatu Online	www.vanuatu.net.vu
Vanuatu National Tourism Office	www.vanuatutourism.com/
The Worlds Factbook Vanuatu	www.cia.gov/cia/publications/factbook/geos/nh.html
Government of Vanuatu	www.vanuatugovernment.gov.vu
Air Vanuatu	www.pacificislands.com/airlines/vanuatu.html
Vanuatu FAQ	www.geocities.com/TheTropics
Telecom Vanuatu Limited	www.vanuatu.com.vu/

Forex rates¹

1	US\$	A\$	Euro
equals	Vt 120	Vt 85	Vt 130

The Vanuatu financial year is the calendar year.

¹ Approximate Forex rates as at March 2003

Abbreviations and Glossary

Acronym	Meaning
ADB	Asian Development Bank
AFD	Agence Française de Développement (French aid agency)
AVL	Airports Vanuatu Ltd
BCR	Benefit:cost ratio
Big man	in Melanesian custom, a man who attains political and/or economic power through his charisma, forcefulness and intellect
CAA	Civil Aviation Authority
COM	Council of Ministers
CRP	Comprehensive Reform Programme
DESD	Department of Economic and Social Development (part of MFEM)
EIA	Environmental Impact Assessment
EIRR	Economic internal rate of return
EMP	Environmental Management Plan
GDP	Gross domestic product
HRD	Human resource development
JICA	Japan International Cooperation Agency
LUPRO	Land Use Planning Organisation
MFEM	Ministry of Financial and Economic Management
MIP	Management Improvement Programme (for PWD)
MIPU	Ministry of Infrastructure and Public Utilities
NGO	Non-governmental organisation
ni-Vanuatu	of Vanuatu; a citizen of Vanuatu, of whatever ethnicity
NTDP	National Transport Development Plan
OFC	Offshore Financial Centre
O&M	Operation and maintenance
OIIDP	Outer Island Infrastructure Development Project
PA	Ports Authority
PCC	Project Coordinating Committee
PHD	Ports and Harbour Department
PPTA	Project preparation technical assistance
PWD	Public Works Department, Vanuatu
RAM	Road asset management
REDI	Rural Development Initiative
SDP	Sector Development Program
TA	Technical assistance
TAG	Technical Advisory Group
TOR	Terms of reference
UIP	Urban Improvement Program (ADB-funded)
VANRIS	Vanuatu Resource Information System
VAT	Value-Added Tax
VIMP	Vanuatu Infrastructure Master Plan
VISS	Vanuatu Inter-Island Shipping Study
VMA	Vanuatu Maritime Authority
VNCW	Vanuatu National Council of Women

I. THE PROPOSAL

1. The proposal is to implement a derivative project to the MOU which was signed on November 18, 2003 between the Government of Queensland and the Government of the Republic of Vanuatu. The title of the project is "Competency Transfer 2003".
2. The Project will develop linkages with Queensland organisations to provide a mechanism for skills and knowledge to be imparted to the Vanuatu organisations and staff. The main focus will be on basic sustainable competencies which can be readily transferred and implemented without high costs and complexities.
3. The financing of the project will be derived from bilateral grant contributions or a multilateral organisation such as ADB or the EU.
4. The term of the project is not defined as the project will establish sustainable linkages which will endure with the counterpart organisation in Queensland. The project will attempt to stimulate a culture change within the PWD and initiate a mechanism where the PWD will be able to sustain the project as a part of the normal management within the Department.

II. INTRODUCTION

5. The project was initiated in early 2002 in response to the lack of systems and the inability of the PWD to address certain aspects of the organisation that fail to meet reasonable expectations. The main contact in Queensland for the MOU and the derivative Competency Transfer 2003 Project is the Director of Public Works in Queensland.
6. The PWD has already taken delivery of many documents from Main Roads in Queensland to assist with the adoption of concise and systematic methodologies in relation to roads. The PWD anticipates the widening of the scope to include other areas such as municipal infrastructure, project management and fleet management.
7. There are always concerns about the sustainability of institutional strengthening and the continuance of benefits in the absence of complementary programs. This project will attempt to instil a different culture with a performance based attitude within the PWD. Many programs and reports in the last few years ie MIP, OIIDP, PAA and CRP, have identified the characteristics and constraints. This project will address some of the issues to allow an increase in the quality of service delivery whilst increasing the effectiveness of the organisation. The transfer will relate to areas within the PWD which will be identified as part of the project. The obvious areas where the transfer is needed is the materials testing, contract administration, design and operational areas within road maintenance.
8. The PWD conducted a series of meetings with potential linkage organisation in the week from November 17 in Brisbane. These meetings were to assess the organisations and introduce the PWD to various persons within the Queensland organisations.

III. THE VANUATU CONTEXT

A. Country Background

9. Vanuatu is an archipelago of over 80 islands with a total land area of 12,000 km² and a total area of 860,000 km². It lies between 13° and 21° South, 166° and 170° East and enjoys a typical tropical climate with a cyclonic wet season in summer and a drier winter. The capital is Port Vila, located on the island of Efate in the centre of the Y-shaped archipelago.
10. The population of Vanuatu is 200,000 and grew at an average annual rate of 3.1% in the inter-censal period 1989-99. The urban population continues to grow significantly faster than the rural population. The majority of the population are Melanesian, but in the urban centres of Port Vila and Luganville, there are small populations of expatriates.

11. Until 1980 the country was called the New Hebrides. Between 1906 and 1980 it was a condominium ruled jointly by France and the United Kingdom. This came about as each country sought to protect the interests of its own citizens who had occupied land in the islands and developed a range of commercial interests. The British were also anxious to contain French influence in the region.

12. In the 1960s and 70s the two colonial powers had very different objectives for the country, the British favouring independence and the French hoping to achieve a status similar to that of New Caledonia. Consequently they worked independently of one another and developed parallel administrations, services and education systems. These became Vanuatu's legacy at independence. The anglophone/francophone dichotomy is protected in the Constitution, mainly because of the francophone community's fears that its perceived economic and educational disadvantages would be exacerbated after independence. Independence was achieved in 1980 after a grass roots based movement.

13. Politically, Vanuatu is a parliamentary democracy with universal adult suffrage and Constitutional separation of powers. The head of state is a figurehead president. The Ombudsman has wide powers to investigate suspected abuses of power and publish reports as a basis for prosecution. After a decade of dominance by the Vanua'aku Pati, the political landscape is now characterised by a multiplicity of parties dominated by 'big men' and opportunistically shifting alliances. Political interference in administrative decision-making, public service appointments and the operation of publicly-owned corporations is entrenched and very costly.

14. The colonial economy was characterised by dualism, with an urban sector dominated by ethnic Europeans and Asians and a largely subsistence-based rural sector which supported the Melanesian majority of the population. To a large extent this is still the case. Tourism and the offshore financial services industry have brought prosperity to Port Vila and to a lesser extent Luganville, while the rural economy has barely grown fast enough to maintain per capita income levels.

15. The populations of Port Vila and Santo have grown since 1980 at average annual rates of 5.6% and 6.3% respectively². This high rate of growth is attributable to migration from the outer islands in order to gain better access to economic opportunities and services. Many such migrants live in informal settlements on the outskirts of Port Vila, where they tend to congregate according to place of origin. These settlements have generally poor infrastructure and more than their share of health and social problems. Nevertheless they are the only route by which the average outer islander can achieve material advancement and give his children access to high-quality education and hence well-paid employment.

16. In contrast, life in the outer islands is culturally rich but limited in other respects. Except for a few with paid employment – mainly in the public sector – outer islanders provide their own subsistence needs from the land and from the sea and, in the northern and central parts of the country at least, rely mainly on copra as a source of cash income. Copra production is arduous and the returns are unimpressive. Cocoa, coffee, kava, beef, taro, peanuts and other cash crops are alternative sources of cash, but their viability varies greatly from island to island, depending on local growing conditions, access to credit and transport services.

B. Structure of the Economy

17. Vanuatu suffers the usual disadvantages of an island country. The population is small and dispersed. Provision of infrastructure and services is costly. Inter-island transport costs make it difficult to develop profitable export industries. Customs and attitudes that are necessary for survival in isolated communities are often not conducive to successful participation in a modern economy, and are at odds with the post-colonial political system.

18. Nevertheless Vanuatu enjoys rich agricultural resources, with a wide range of climatic and soil conditions and adequate rainfall allowing cultivation of both temperate and tropical crops. The country is notable for its ability to produce high quality beef, cocoa, coffee, kava, nuts, spices, sandalwood and timber. Moreover the climate, natural beauty and temperament

² 1999 Population Census Preliminary Results, Statistics Office.

of the people are attractive to foreign tourists. There are frequent cruise ship calls and the tourism sector has recently received a boost from the instability in Fiji and the Solomon Islands. Proximity to Australia and New Zealand gives Vanuatu an inherent advantage over many other Pacific island countries.

19. The Agriculture, Livestock, Forestry and Fisheries sector contributed 20% of Gross Domestic Product (GDP) in 1999³. This percentage has remained almost unchanged for ten years, following a sharp drop from its peak of nearly 30% in 1985. The outer islands are the main agricultural producers with the major production areas being in the three central provinces of Sanma, Malampa and Penama⁴. Official statistics show that the subsistence subsector accounts for 36% of total value added in the sector and 7% of GDP. But it has been suggested that this is an underestimate, by as much as 50%.

20. Manufacturing accounts for 3% of GDP. It chiefly comprises brewing, soft drink manufacture, baking, slaughtering and other food processing for the domestic market; and sawmilling and other activities related to the domestic construction sector. The Government projects sectoral growth in excess of 7% pa during 1999-2002. Utilities account for only 2% of GDP, being restricted to urban consumers. The construction industry's fortunes vary with the level of investment, typically contributing about 3% of GDP.

21. Services contributed 71% of GDP in 1999. Wholesale and retail trade alone was responsible for 34%, which is an unusually high figure. This presumably reflects the high mark-ups which are considered normal in Vanuatu, partly as a result of the high cost of servicing small communities. Government services contributed a modest 13% of GDP.

22. Tourism plays a major role in the economy. It is not separately identified in national accounts, since tourist expenditure is spread across all sectors, but hotels, restaurants, transport and communications together contributed 12% of GDP in 1999. Those sectors cater disproportionately to tourists and it may be assumed that they account for a majority of tourist expenditure. The tourism sector's gross foreign exchange earnings are equivalent to about 23% of GDP⁵. As a very broad estimate, tourism probably accounts for 10-15% of GDP.

23. As yet, however, tourism is largely focussed on Port Vila. A number of other islands receive calls from cruise ships and associated payments by the cruise ship companies. Of 40,000+ foreign visitors to Vanuatu annually, fewer than 2,000 make short visits to Tanna (where there is an active volcano, a kastam village and good accommodation) and about the same number go to Santo (which is very attractive to SCUBA divers). A handful go to Pentecost (famous for the annual *nagol* land-diving), Ambrym and Malekula.

24. The Offshore Finance Centre (OFC) generates substantial foreign exchange earnings, urban employment and government revenue, but has virtually no direct impact on the outer islands.

C. Balance of Payments

25. Vanuatu's balance of payments is relatively healthy. At Vt6.3 billion (US\$46 million) gross official reserves in 1999 provided more than 6 months' import cover. A substantial trade deficit is more than made up by net service receipts (mainly tourism and OFC). After taking into account income flows and current transfers (official and private) there was a small current account surplus in 1998 and a deficit equivalent to 6% of GDP in 1999. Official capital transfers and foreign direct investment turned this into an overall surplus equivalent to 2% of GDP.

D. Economic Performance and Prospects

26. Despite Vanuatu's undoubted development potential, substantial private investment and the support of donors and lending agencies, economic growth since independence has been disappointing. According to published GDP statistics, per capita income has been static

³ Year 2000 Budget, Fiscal Strategy Report.

⁴ Copra and Cocoa Annual Report 1998, Statistics Office, Vanuatu

⁵ In nominal terms for the 1998 year, DESD Economics Section estimate.

since 1983, expressed in constant-price vatu. In US\$ terms it has declined at an average annual rate of 2.2%. In 1999 the estimated per capita GDP was equivalent to US\$1,067.

27. Given the extreme urban/rural disparity, discussed above, the average outer island per capita income must be much less

28. Economic policies associated with the CRP are expected to produce a better performance in the future. The economy's cost structure is being lowered by removing regulatory distortions and unnecessary restrictions on trade and competition; the role of the public sector is being defined and reduced, particularly in commercial areas; more flexible, productivity-based wage structures are possible; there is a flexible exchange-rate policy; and the tax system has been rationalised and made more business-friendly. Land law reform is planned, to minimise land-tenure uncertainties, facilitate investment and encourage better land use. The objective is to facilitate export growth in agriculture and tourism. To promote ni-Vanuatu involvement in business, there is renewed emphasis on access to credit in conjunction with business training.

IV. PUBLIC WORKS DEPARTMENT

A. Organisation

29. The Ministry of Infrastructure & Public Utilities is composed of the Ministry Cabinet; Executive of the Ministry; Public Works Department; Ports and Harbour Department; Vanuatu Meteorological Services; and the Civil Aviation Authority.

30. In an institutional review of PWD⁶, part of the CRP program, the following findings and recommendations were made:

- (i) **PWD Functions and Responsibilities.** Many of the functions currently assigned to PWD⁷ are not central to its core activities of building and maintaining national roads and should be transferred or privatised.
- (ii) **Long-Term Vision.** According to the CRP principles of reducing government involvement in areas more suited to a competitive private sector, even PWD's core road-related activities should be corporatised, privatised or contracted out; its workshops could be sold and its divisional road units commercialised to provide contracting services for maintaining both national and provincial roads.
- (iii) **Structure and Staffing.** Recruitment of suitable staff is difficult, exacerbated by low salaries and uncertainty of tenure. Expatriate engineers will need to continue to fill positions established for major projects and to assist with other tasks. HRD and training needs to be reactivated, based on a HRD plan to be prepared.
- (iv) **Facilities, Plant and Equipment.** PWD office facilities are good; so too are the workshops at Port Vila, Luganville, Lakatoro, Saratamata and Isangel.⁸ Much of the plant is old and unserviceable, of mixed makes and models, making servicing and repairs expensive; the size of the fleet is out of scale with needs and the maintenance budget available, yet there are shortages of several important items. A rationalisation of the fleet is needed, with account taken of the difficulties of servicing outer islands and the availability of contracting and plant-hire capacity.

⁶ Department of Public Works – Institutional Strengthening, ADB TA No. 3046-VAN, November 1999.

⁷ Issuing G-plate registrations, sewerage disposal in Luganville, transport for ministers and their staff, and provision of engineering and architectural consulting services to other government departments.

⁸ The future PWD structure and arrangements for completing road maintenance will be subject to review under the MIP. Some regions may be too small for private operators, but as a matter of principle PWD should aim to achieve operating efficiencies comparable to the private sector, and to implement systems to monitor performance.

- (v) **Procedures and Systems.** Business planning by PWD is in its infancy: there are no formal internal management, quality assurance or reporting systems. There is no reliable road inventory, no assessment of road condition and no systematic assessment of road maintenance needs; a road management system should be established to prepare strategies for road maintenance. Contracting out of road maintenance needs better documentation and supervision procedures. Streamlining of approval procedures for donor-financed projects is needed to reduce the significant delays that occur.
- (vi) **Budgeting and Accounting.** The budget allocation for maintaining national roads is significantly less the amount needed. The present government accounting system allows for asset depreciation and cost of capital. The system militates against contracting-out and makes it difficult to measure the effectiveness of maintenance expenditure. There is no system of internal job charging, and work carried out for external agencies serves only to cause a corresponding reduction in the amount available from budget sources, making it unattractive to improve the utilisation of resources by taking on external work. The government system of warrants for approved expenditure makes it difficult to maintain an even project expenditure profile and to contract out work early in the year.

31. Overall, the study found that PWD had the plant and operators needed for road maintenance⁹ but it lacks technical guidance and management systems. With the exception of Port Vila, there is very little maintenance capability among municipal or provincial governments. There are Vanuatu-based road contractors, but maintenance contracts have not always attracted viable contract bids, partly because of their uneconomic size.

32. There is an urgent need for improved project management procedures, including planning, estimating, quality assurance, problem resolution, financial management and reporting.

33. With road projects likely to make up a significant proportion of proposals, sustainability of road maintenance is extremely important. Ultimately, a more commercial approach and greater accountability for the level and use of maintenance funds will help ensure that roads are consistently maintained in the interests of their users. In the meantime, the necessary basic steps – which also correspond to the necessary pre-conditions that must be satisfied if successful and sustainable implementation of road infrastructure subprojects in the outer islands is to proceed – are as follows:

- (i) on the basis of a comprehensive inventory of road/bridge facilities, to agree on which are national, provincial and municipal and to agree on a division of responsibilities for road maintenance between national, provincial and municipal governments;
- (ii) to establish a reliable and sustainable funding for road maintenance, initially from the government budget but ultimately a more secure source of funding could come from a system of user charges;
- (iii) to establish systematic procedures for monitoring road/bridge conditions by survey and determining maintenance needs and priorities, capable of ensuring that the economic benefits for any given level of expenditure are maximized¹⁰; and
- (iv) to establish strengthened maintenance implementation capabilities in the regions (staffing, works planning and scheduling, fleet management,

⁹ Although there is a substantial plant inventory, many of the items in service are old, inefficient and unreliable, or, in some cases, too sophisticated for local maintenance resources. There are also shortages of some plant items such as a rollers.

¹⁰ Modern road asset management systems are capable of determining the optimum allocation of maintenance funds to maximise economic return, given the level of traffic and the condition of each road link (determined by routine survey).

equipment maintenance, and output-based contract arrangements) and procedures for monitoring the effectiveness of maintenance operations.

34. PWD's present organisation structure is shown in Figure 1. There are three Managers under the Director, who reports to the Director General of the parent Ministry of Infrastructure and Public Utilities (MIPU). The Manager Projects is responsible for major projects, usually funded by donor agencies; the Manager Operations looks after maintenance operations in the six PWD field divisions, one in each province.

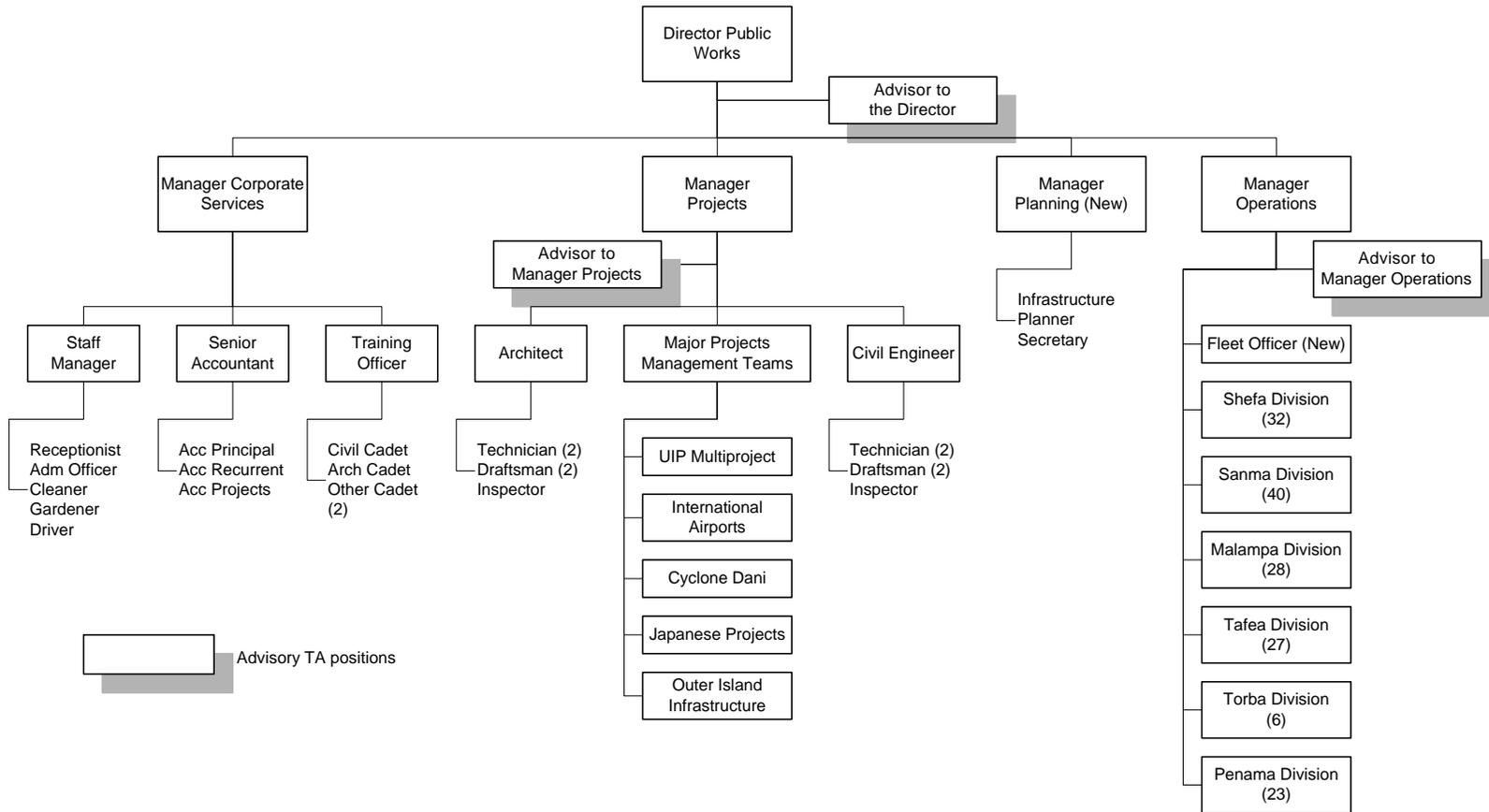
35. Out of a total approved staff complement of 162, approximately 139 positions are currently filled.

	Head Office	Malampa	Shefa	Penama	Sanma	Tafea	Torba	Totals
Engineers	4/4		1/0		1/0			6/4
Eng Technicians	2/2	1/0	1/1	1/0	1/1	1/1		8/5
Architects	2/2							2/0
Arch. Technicians	3/4							3/4
Cadets	4/5							4/5
Accountants	1/1							1/0
Accounts Clerks	2/2	1/1	1/1	1/0	1/0	1/1	1/1	8/7
Admin./Clerical	4/4	2/1	2/2	2/1	3/3	2/1	1/0	18/12
Inspectors/Foremen	2/0	4/1	6/7	5/5	9/10	4/1	1/0	31/24
Tradesmen		8/4	9/4	4/4	12/12	7/2	0/0	42/28
Operators		5/2	8/8	7/3	7/7	5/3	1/1	33/24
Labourers etc.	3/3	7/1	4/2	3/0	6/6	7/2	1/1	31/15
Total	28/25	20/16	29/25	16/10	42/40	22/18	5/5	162/139

36. These vacancies – compounded by low salaries and concerns about tenure – have had a negative impact at all levels on the effectiveness of PWD's maintenance operations, even more so than claimed budget shortages. There are serious concerns about PWD's capacity to meet its responsibilities for maintenance of the national network. Little more than emergency maintenance is carried out in most divisions. Attempts are being made to address these concerns, following an Institutional Strengthening study carried out in 1999 with ADB technical assistance¹¹. Moreover, key systems and procedures – for monitoring road conditions, planning the maintenance program, allocating scarce resources in a cost-effective way, estimating, budgeting, controlling finances, out-sourcing maintenance work and upgrading staff skills – need to be rebuilt virtually from scratch. A Management Improvement Plan (MIP) has been drawn up to address these critical shortcomings.

¹¹ PWD Institutional Strengthening study, *Op. Cit.*

Figure 1: PWD Organisation Structure



V. INFRASTRUCTURE SECTORS

A. Airports and Airstrips

37. There are 29 airports and airstrips. The three gateway airports – Bauerfield (Port Vila), Pekoia (Luganville) and Whitegrass (on the island of Tanna) – are operated by Airports Vanuatu Limited (AVL), established in 1999. The Civil Aviation Authority (CAA) is responsible for the remaining 26 airports (as well as flight control, navigation and air safety matters) and has an 18-month contract with AVL to maintain these, funded from the Government's budget. Bauerfield and Pekoia airports and terminals are being upgraded to full 767 and limited 737 levels respectively, with AFD funding. The PWD involvement in the operations is limited and will assist AVL to maintain airstrips and perform works derived from donor funding.

B. Ports and Wharves

38. There are 22 public ports and wharves in Vanuatu and many more informal coastal landing points. Port Vila and Port Santo at Luganville are the two main international ports¹², but in an attempt to encourage greater competition with inefficient inter-island shipping companies five other ports were declared open to international shipping in 1999. These are Lenakel (on Tanna), Lolong (Pentecost), Sola (Vanua Lava), Anelgowhat (Aneityum) and Litlits (Malekula)¹³.

39. Port Vila and Port Santo are currently the responsibility of the Ports and Harbours Department (PHD), but may be transferred to a Ports Authority. In both cases, handling operations at the wharves and storage areas are contracted out to stevedoring companies. While this appears to be working effectively in Santo, the arrangement involving Ifira Wharf and Stevedoring in Vila has been criticised for its lack of incentive to raise labour productivity and encourage investment in new equipment. Santo wharf has recently been improved with ADB funding.

40. PHD has an approved staff of 33. To some extent the organisation structure still reflects its earlier functions, before responsibility for the Maritime College was transferred to the Ministry of Education and Youth Affairs, a decision was made to dispose of the government fleet, and responsibility for maritime safety was moved to the newly-established Vanuatu Maritime Authority (VMA). The VMA has responsibility over all maritime safety-related and regulatory functions including navigation aids, licensing of seafarers and vessels, international treaties, administration of the International Ships Registry, and search-and-rescue services. It is funded mainly from service and registration fees, but also receives a small annual grant from the Government.

41. According to the 1994 Decentralisation Act, responsibility for management and maintenance of the remaining wharves (including the additional five international ports) lies with the six provincial governments. Lacking resources to maintain them, they have been reluctant to take over such responsibilities. Many are in poor condition. Two exceptions are the wharves at Litlits (Malekula) and Lenakel (Tanna), both of which have been recently upgraded with Japanese assistance and carry respectable amounts of traffic.

42. The main islands in the central provinces of Sanma, Malampa, Penama and Shefa receive reasonably frequent domestic shipping services, but the rest of the outer islands, particularly those in remote Torba and Tafea provinces, are poorly served. The growing primacy of Port Vila and Luganville is encouraging a concentration of services on trunk routes, leaving the outer islands with irregular service. The inter-island shipping industry is still largely orientated to carrying copra. Small vessels make beach landings wherever a few bags of copra are ready for collection. The same vessels carry trade goods which islanders buy with the cash received for the copra. This arrangement has changed little in decades, but its inherent costliness calls for change.

¹² There are private wharves at both ports in addition to the public facilities.

¹³ Only Litlits and Lenakel have any useable port infrastructure. Sola has a landing stage that is generally inaccessible to shipping, and there is no infrastructure at the other two. All locations, however provide good anchorages.

43. Navigation aids are almost non-existent. Vessel safety standards are poor, most of the domestic fleet being owned by local companies with little managerial, financial or technical experience. The VMA's initial priorities are to raise standards of safety education and seamanship and to encourage basic safety practices such as carrying lifebelts. With time, however, it is likely that many vessels will be scrapped and replaced. The VMA is actively encouraging a program of fleet rationalisation and replacement. Ship-owners are constrained by lack of capital in responding to the new regulatory environment, but some recent developments offer hope that the necessary changes will take place. The older vessels are likely to be progressively phased out as a result of a more rigorous application of maritime standards. Several vessels of the landing-craft type have been introduced, including a new 220 DWT stern-ramp barge introduced by Coconut Oil Products Vanuatu Ltd (COPV), the owners of a new Santo oil mill, and now operating in general trades under new ownership. A conventional ship of 500 DWT will shortly come into operation. This will be by far the largest in the fleet. The owner intends it to operate only as a trunk service, with smaller vessels providing feeder services. This is in line with the recommendations of the 1992 Vanuatu Inter-Island Shipping Study (VISS)¹⁴.

C. Roads

44. There is now a formal inventory of the road network in Vanuatu, but the definition of what constitute the networks of national, provincial and municipal roads is ill defined. PWD tries to maintain on a more-or-less regular basis some 800-900 kms out of a total of about 1,600 kms of "national" roads (Table C-1), but its management, staff and equipment resources are severely limited. Consequently the condition of the PWD maintained roads, mostly constructed of coronous material, is deteriorating. The cost of eventual reconstruction and rehabilitation will be much higher than if proper maintenance had been carried out. Common problems are loss of surface material, poor drainage and erosion at the side of the road, and damage of river crossings.

45. Apart from the municipal roads in Port Vila and Luganville, the extent of the remaining network – which has been the responsibility of the six provincial governments since 1994 – is unknown. Most are feeder roads linking isolated villages, connecting to the national road network and sometimes wharves or airstrips. Many, having been constructed during the Second World War and lacking any maintenance since, have reverted to bush tracks. Others have more recently been upgraded but have suffered cyclone or rain damage, often at river crossings, that has gone un-repaired. Provincial governments have no technical capability to maintain these roads and most of their funds, largely derived from central government grants, are consumed in administration costs.

1. National Roads

46. There is no formal definition of the national road network that is PWD's responsibility. In any year, the proportion maintained depends on the receding budget, the condition and availability of equipment and, especially in the period since the mid-1990s and the CRP, the availability of staff.

47. In the past, PWD was responsible for building and maintaining all government infrastructure – roads, airports, wharves, water supplies, electricity supplies and government buildings including housing – as well as testing and servicing government vehicles and providing other technical services to government agencies. Some electricity and water supplies have now been transferred to municipal agencies; government departments are responsible for their own vehicles and infrastructure; and the Decentralisation Act has transferred responsibility to provincial governments for building and maintaining primary schools, health facilities, public buildings, water supplies, bridges and roads (except national roads), wharves and jetties. Although it still provides some technical services to other departments and carries residual responsibilities for government housing, water supplies (e.g. in Luganville) and wharves, PWD's main remaining responsibility is for national roads.

¹⁴ Vanuatu Inter-island Shipping Study TA 1525-VAN, PPK Consultants Pty Ltd, 1992

Table C-1: Approximate Network Maintained by PWD (kilometres)

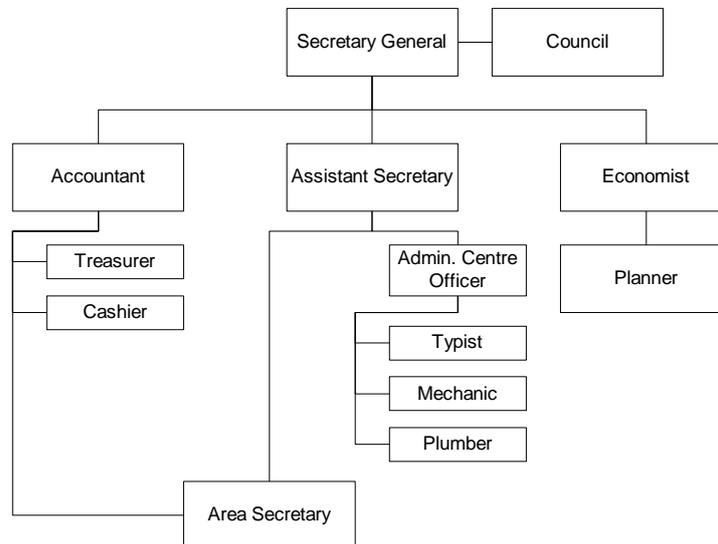
Island/Province	Earth	Seasonal	Gravel	Sealed	Total	PWD Maintained		Other Rds Maint'ned
						Regular	Occas'l	
Mota Lava	14				14			
Vanua Lava		8			8		8	
Gaua			8		8			
Total TORBA Province	14	8	8	0	30	0	8	0
Santo			241	24	265	261		4
Malo			91		91		20	
Total SANMA Province	0	0	332	24	356	261	20	4
Ambae	91				91			
Pentecost	3		102		105		102	
Maewo	23		17		40			
Total PENAMA Province	117	0	119	0	236	0	102	0
Meleluka			298		298	209	10	
Ambrym	52		20		72			
Paama		12			12			
Total MALAMPA Province	52	12	318	0	382	209	10	0
Epi	35	11	20		66		10	
Tongoa	38				38			
Emae	6		16		22		10	
Nguna	11				11			
Emau	5				5			
Pele	3				3			
Efate			140	70	210	183		27
Total SHEFA Province	98	11	176	70	355	183	20	27
Erromango	45				45	33		
Tanna	69		71	1	141	128		
Aniwa		4			4			
Aneitym	4	5			9			
Total TAFEA Province	118	9	71	1	199	161	0	0
Grand Total	399	40	1,024	95	1,558	814	160	31

2. Provincial Roads

48. The 1994 Decentralisation Act assigned responsibility for the development and maintenance of roads other than national roads to the provincial administrations (except for urban roads in Port Vila and Luganville, which come under the municipal governments). There is no information on the lengths of these provincial roads; many that might be classified as such are little more than walking tracks impassable to vehicles for much of the time.

49. The capacity of provincial governments to fund and implement a program of proper maintenance is minimal. The condition of the non-national network has deteriorated badly, even more so than for PWD's roads. Many are no longer in a maintainable state and require reconstruction to re-establish serviceability; many have reverted to the bush. Provincial governments have no technical staff (Figure 2), and the politicisation of provincial councils since 1994 (notwithstanding more recent attempts to reintroduce civil servants) has made it very difficult to establish sustainable programs based on rational technical and economic standards rather than political expedience. In 1999, provincial governments spent a total of only Vt 11 million on road maintenance, just 3.9% of all their spending.

Figure 2: Typical Provincial Administration Structure



3. Municipal Roads

50. The PWD by default does most of the maintenance and construction of roads in the municipal areas. The Municipalities have limited resources and expect the PWD to fund any works. Further there are many private developments where the roads should be maintained by the private developers.

D. Infrastructure Character

51. The most critical question for the PWD is whether the expected benefits can be achieved. There are considerable doubts about the institutional capacity and reliability of funding for maintenance for roads and wharves in the outer islands.

1. Airports

52. As indicated earlier, CAA has contracted with AVL to maintenance outer-island airstrips – sometimes using PWD resources – using funds allocated from the Government budget¹⁵. For 2002, Vt 28 million has been allocated; this is probably adequate to meet routine maintenance needs¹⁶. Provided that the allocated funds are properly accounted for and a multi-year commitment to maintenance funding is made (this can be done through the maintenance contract), this arrangement would provide an acceptable assurance of sustainability for the short term. For the longer term, however, a commitment to funding airstrip maintenance from aircraft landing charges is needed.

53. Maintenance of airstrips is the responsibility of CAA, which has contracted with AVL to carry out the work – sometimes using PWD resources – using funds allocated from the Government budget. For 2004, Vt 28 million has been allocated; this is probably adequate to meet routine maintenance needs. Provided that the allocated funds are properly accounted for and a multi-year commitment to maintenance funding is made (this can be done through the maintenance contract), this arrangement would provide an acceptable assurance of sustainability for outer-island airstrip improvement subprojects. For the longer term, however, a commitment to funding airstrip maintenance from aircraft landing charges is needed.

2. Ports & Wharves

54. Wharves and jetties should generally be the responsibility of the provincial governments, yet there is little technical capability at that level to manage a program of maintenance, nor funds to finance it¹⁷. For this reason, provincial governments have been reluctant to accept responsibility for wharves recently improved under national programs, many of which have been found to have been poorly located, designed and constructed. PHD too has been unable to carry out the necessary remedial works (particularly repairs required after cyclone or storm damage), with the result that of six wharf/jetty projects built or improved in the late 1980's none have achieved anything like the level of usage envisaged in the project justification, and at least three can no longer be considered operational.

55. There are also concerns about the institutional capacity to maintain marine wharves. PHD is responsible for maintaining only Vila and Santo ports. Under the 1994 Decentralisation Act, responsibility for the remaining wharves (including five declared open to international shipping) was handed to provincial governments, but they have no resources for the task. The exceptions are at Litslits (Malekula) and Lenakel (Tanna) wharves, recently constructed with Japanese aid, where the provincial governments charge fees for ship calls and goods and passenger movements. Malampa is considering a similar arrangement at Craig Cove wharf (Ambrym) and Port Sandwich (South Malekula).

56. This system of cost recovery offers a realistic prospect for raising the funds needed by provincial governments to carry out repairs. Users are more likely to insist on repairs if they are charged fees. Given the lack of technical capacity in provincial administrations, however, the system of user charges needs to be linked to a mechanism for engaging PWD or private contractors to carry out maintenance under contract.

¹⁵ Maintenance at Bauerfield, Pekoa and Whitegrass are funded from airport charges.

¹⁶ The Vt 28 M has been exceeded in 2000, but this is believed to be a result of a lack of control of expenditures early in the year.

¹⁷ There are some limited exceptions, notably where provinces currently (or are proposing to) charge user fees or contract out the management of storage and wharf space.

3. Roads

57. PWD has developed a road inventory but lacks any systematic procedure for determining maintenance needs and priorities or allocating resources based on rational economic criteria. No routine surveys of road conditions or traffic are carried out. The six divisional offices that implement maintenance, one in each province, prepare budget proposals each year based on their judgement of needs and the staff and equipment they have available¹⁸, but these usually address only the worst sections of damage on a rotating cycle. Given their limited resources and the lack of policy direction from head office, the PWD field divisions in most provinces make a creditable effort at keeping roads open and dealing with the worst failures, but their current efforts cannot prevent continued deterioration.

58. At the provincial level, there is no technical capacity at all for road maintenance. What little maintenance is done is carried out either by PWD working under contract to provincial governments usually only for emergency works, or by community labour employed by the provincial government to cut roadside vegetation and clear drains. While the latter arrangement has the potential to offer basic, inexpensive and cost-effective routine maintenance (particularly if linked to close community "ownership" of, and self-interest in, the road) and serves as a source of local income, it needs better technical supervision and training than provincial agencies can currently provide.

59. For both national and provincial roads, apart from institutional and technical limitations, there are also concerns about the security of maintenance funding. While certain taxes and charges are collected from road users – including excise on imports of vehicles, spare parts and fuel, and a Road Tax levied on vehicle registration, in total amounting to Vt915 million in 1999 – the revenues accrue to the Government's consolidated account and are not earmarked for road maintenance. The amount budgeted for maintenance of national roads has declined in recent years. For provincial roads, the amount allocated to maintenance is negligible.

4. Water Supplies

60. The PWD operates the water supplies in the urbanised areas of Luganville (Santo), Lakatoro (Malekula) and Lenakel (Tanna). The PWD is urging the Ministry to divest all water supplies to Unelco which owns and operates water and electrical utility services in urban environments in Vanuatu. The water systems are senescent and need major upgrades to deliver uncontaminated water on a level reasonable for urban areas.

5. Municipal

61. The municipal infrastructure should be maintained by the individual Municipalities in Luganville and Port Vila but in reality only the PWD has the capability to maintain roads and drainage in these areas. Most of the infrastructure is dilapidated and requires urgent attention but the lack of funding prevents anything but the most urgent repairs.

¹⁸ Regional offices report that unreliable equipment and lack of key staff undermine efforts to plan maintenance activities, and result in a form of crisis management, wherein the most urgent needs are addressed as resources are available.

Table D-1: PWD Needs and Outcomes

Assessed Needs	Intended Outcomes	Comments
Develop Materials Testing skills	Training of PWD staff in Queensland in material testing laboratories and on site training	Training should be ongoing and include reporting and examination at the end of training sessions. Skills should be transferred to local staff by the trained staff to increase knowledge within Vanuatu.
Lack of technical and management skills among PWD staff	Preparation and implementation of a recruitment, staff development and training plan, including a program to utilise existing training resources and introduce new short-course programs to upgrade staff skills	
Lack of contract administration skills	Provision of standard contract administration systems.	
Fleet management	Adoption of standard fleet management procedures. More efficient inventory systems and procurement of parts.	These are high-priority elements as the PWD wastes large amounts on the fleet.
Road maintenance	Acquire training and knowledge for the efficient operation of road maintenance	
Project management	Establishment of a comprehensive project accounting system which is integrated into the Finance system Smartstream package.	Although provincial governments are responsible for all but national and municipal roads under the 1994 Decentralisation Act, these are not defined
Lack of procedures for identifying road maintenance needs, evaluating options and planning and scheduling maintenance works	Establishment of a road asset management (RAM) system, with routine procedures for monitoring road/bridge conditions and determining maintenance needs and priorities, capable of ensuring that the economic benefits for any given level of expenditure are maximized	
Ineffective controls over the cost of PWD's operations and expenditures on road projects; rates for work items that bear little relation to the true costs; no routine system for monitoring the cost-effectiveness of activities	An overhaul of PWD's financial management system, providing more accurate and timely reports, more accurate estimates, responsible asset management, direct control over expenditures and better monitoring of the cost-effectiveness of PWD's operations	
Inefficient and costly out-sourcing of road rehabilitation and maintenance services Poor quality of work due to inadequate supervision Insufficient or ineffective use made of local resources for infrastructure maintenance	An overhaul of PWD's systems/procedures used for out-sourcing road rehabilitation and maintenance, including registering contractors, drafting contract specifications and documentation, calling and evaluating tenders, supervising and measuring construction and maintenance work, and certification/payment procedures	

E. Policy Framework

62. The project seeks to implement the Government's policies in the following areas:
- (i) **Institutional capacity-building.** The project includes several measures to strengthen the capacity of PWD to plan and carry out the maintenance of infrastructure assets: a strengthening of management capacity, a new asset management and maintenance planning system, improved financial management and controls, more effective procedures for managing out-sourced works contracts and the preparation and implementation of a comprehensive HRD and training plan.
 - (ii) **Sustainable funding.** The project relies upon the recurrent budget for the maintenance of the linkage with Queensland. The benefits achieved will be very valuable but at the same time very cost effective due to the nature of the project. The Project will link existing systems into the PWD organisation.
 - (iii) **Planning based on rational criteria.** The project will introduce improved tools for evaluating the economic costs and benefits of subprojects and standard procedures for assessing their social and environmental impacts. These will also be linked with a formal process of monitoring to ensure that the impacts of subprojects are as predicted and to identify any adjustments that have to be made at both subproject and program levels.
 - (iv) **Responsible financial management.** The project will establish and implement improved systems of financial management, control and reporting for infrastructure subprojects. In the case of roads, this will involve an overhaul of PWD's financial management, costing and estimating, expenditure control, payments and reporting systems.
 - (v) **Competitive out-sourcing of construction and maintenance works.** The project will introduce improved forms of contract for maintenance works, improved contract documentation and more effective supervision arrangements that will increase the efficiency and cost-effectiveness of out-sourced construction and maintenance work. It will also include measures to increase competition in the contracting industry by offering more opportunities for smaller contractors and community-based labour groups.

VI. THE PROJECT COMPONENTS

A. The Project Characteristics

63. The purpose is to provide a sustainable development of the various PWD functions to alleviate restrictions on the provision of services to the public. The linkage will be between the PWD and various Queensland organisations.

64. The Project will take the following form;
- (i) Identify elements of the PWD which are operating at a level below that expected levels
 - (ii) Benchmark the levels for reference
 - (iii) Identify and liaise with service delivery organisations in Queensland
 - (iv) Select components which can be improved by the competency transfer
 - (v) Obtain funding from a donor organisation eg Asian Development Bank, AusAID

- (vi) Implement training, reorganisation, procure materials
- (vii) Monitor and set performance milestones if appropriate
- (viii) Provide means for continuity

B. The Project Team

Player	Identity	Roles
Malcolm McMillan	Director Dept of Public Works Level 6A, 80 George St, Brisbane, Queensland Ph: 61 7 3227 7522 malcolm.mcmillan@publicworks.qld.gov.au	Initiation Liaison
Geoff Goh	Manager International Business Dept of Public Works Level 6A, 80 George St Brisbane, Queensland Ph: 61 7 3227 7522 geoff.goh@publicworks.qld.gov.au	
Kalwajin Skepha	Training Officer PWD PMB 9044 Port Vila Vanuatu kskepha@vanuatu.gov.vu	Training Leadership Financial
Richie Nichols	Project Manager PWD PMB 9044 Port Vila Vanuatu nichols@vanuatu.gov.vu	Initiation Liaison Financial Resourcing Communication focus

65. Other personnel will be identified as the project develops and further resources are required for implementation.

C. The Stakeholders

66. Other personnel will be identified as the project develops and further resources are required for implementation.

Asian Development Bank	PO Box 127 ph 23300 fax 23183 Ray Cahoon, Pita Moala jcahoon@adb.org
DESD	PMB 008 Port Vila ph 22605 fax 23087 Director: Jimmy Andeng jandeng@vanuatu.gov.vu
Finance Dept	PMB 031 Port Vila ph 24543 fax 25533 Acting Director: Dorothy Andrews dandrews@vanuatu.gov.vu
Lands Dept	PMB 090 Port Vila ph 22892 fax 27708 Joe Sel

Environment Unit	PMB 063 Port Vila ph 25302 fax 23565
DESD Japan	PMB 008 Port Vila ph 22605 fax 23087 Stewart Hadfield shadfield@vanuatu.com.vu
Unelco	PO Box 26 Port Vila ph 22211 fax 25011 Jean Chaniel Jean.Chaniel@unelco.com.vu
Telecom Vanuatu Ltd	PO Box 146 Port Vila ph 22185 fax 22628 Richard Hall rhall@tvn.net.vu
DESD EU	PMB 008 Port Vila ph 22306 fax 23087 John Townend jtownend@vanuatu.gov.vu
DESD France	PMB 008 Port Vila ph 22306 fax 23087 Thierry Francois tfrancois@vanuatu.com.vu
European Union	PO Box 422 Port Vila ph 22501 fax 23282 Charge d'Affaires: Costas Tsilogiannis mailto@delvut.cec.eu.int
Ausaid	PO Box 111 Port Vila ph 22777 fax 22292 Zoe Mander- Jones Zoe.Mander-Jones@dfat.gov.au
PWD Shefa	PO Box 044 Port Vila ph 22888 fax 24495 Division Manager: Jimmy Ngwero jngwero@vanuatu.gov.vu

D. Cost Estimates

67. The total estimated annual cost of the Competency Transfer 2003 Project is presently limited to the recurrent budget allocation for training. There are immediate opportunities to align with other projects though. Of great significance is the road maintenance project funded by the EU.¹⁹ The funding for this project is € 1,995,000 over three years and has a training component of € 380,000. In addition the deferred Outer islands Infrastructure development Project has funding available for training and implementation of various systems.

E. Implementation Arrangements

F. Monitoring and Evaluation

68. Monitoring and evaluation are often neglected, especially where projects are small and some or all of the expected benefits are difficult to quantify. In view of past experience with outer island projects in Vanuatu, however, it is considered important in this case to establish a system by which the success of the proposed subprojects can be assessed.

69. Monitoring of outputs will normally occur in the course of project supervision, since the supervising engineers will be required to ensure that contractors meet the design specifications. A related task, after project implementation, will be to monitor maintenance activities. This may be done simply by collecting factual data from PWD (with respect to

¹⁹ Maintenance Training Programme EDF Project No 9 ACP VA02

roads), provincial governments (with respect to marine structures) and the Civil Aviation Authority (with respect to airstrips).

70. The monitoring of effects can be done largely by formal means – that is, by recording measurable data before and after project implementation and attributing any change (wholly or partially) to the project. By their nature, however, impacts are less susceptible to formal monitoring. It will be necessary to employ informal techniques to assess beneficiary communities’ perceptions of the benefits they have derived from a project; and compare those perceptions with the same communities’ expectations when they were originally approached for their project ideas.

VII. TECHNICAL ASSISTANCE

A. Technical Assistance Requirements

71. The components listed below give the main contact, contact details and provide a description of the organisation together with specific transfer elements.

1. Fleet Management

<p>Colin Gibbons Manager RoadTek Plant Hire Services Ph: ++617 3403 4934 Fax: ++617 3403 6787 Email: colin.f.gibbons@mainroads.qld.gov.au</p>
<p>Plant Hire Services has been operating in as a commercial business unit of the Queensland Department of Main Roads since 1996 and is the largest Queensland supplier of earthmoving and associated plant.</p> <p>Plant Hire Services provides the plant and equipment needs for a wide range of Government and private sector organisations involved in road and civil construction, including many Local Governments.</p> <p>The organisation has a staff of one hundred and ninety people managing assets with a replacement value in excess of \$120m. There are offices in fifteen strategic locations across the State supplying an extensive range of plant & equipment including:</p>
<p>Project Management</p> <p>The use of project management methodology is applied to the management of plant as the over-arching philosophy and incorporates process mapping of the project life-cycle.</p> <p>Plant Life-cycle Management</p> <p>This is the plant fleet management process based on the plant life-cycle from acquisition to disposal and sets out the management of the plant throughout its lifetime. This includes whole of life costing.</p> <p>Acquisition Management</p> <p>This process deals with capital purchase planning, establishment of supplier arrangements and management of the purchase process</p> <p>Plant Commissioning</p> <p>The introduction of plant into the fleet ensuring the management of compliance, workplace health & safety, data collection and operator / workshop induction procedures.</p>

Operational Fleet Management

The management of fleet operations including administration of plant contracts

Fleet management reporting

Financial Fleet Management

Financials for fleet management including asset register, depreciation schedules, return on assets and management of residual values

Fleet Maintenance Management

The management of scheduled, unscheduled and warranty maintenance

Maintenance management reporting

Workshop management

Disposal Management

Disposal preparation

Disposal methodology

Review processes

2. Municipal Infrastructure

Martin van Weerdenburg

Business Development Manager

Brisbane City Enterprises P/L

Ph: ++617 3403 4934

Fax: ++617 3403 6787

Email: martin.vanweerdenburg@bce.com.au

Brisbane City Enterprises Pty Ltd (BCE) is an Australian based company providing multi-disciplinary technical and management services and innovative products to partners in the public and private sector. Since its inception in 1997, it has contributed to the success of some 140 projects in 24 countries throughout Asia Pacific, South Asia, South Africa and the Middle East.

BCE is a commercial entity wholly owned by Brisbane City Council (BCC), Australia's largest local government authority, and thus draws upon the broad resources, expertise and experience of BCC to deliver world-class services to the national and international marketplace.

BCE's access to BCC resources has been complemented by a strategy of selective alliance and partnership development with other key public and private sector organisations. This has positioned BCE as an internationally recognised leader in the delivery of practitioner-based local government expertise.

BCE has developed and earned a reputation for providing experienced professional personnel who are actively engaged in managing the challenges and issues facing local government across the globe. This ensures that client's goals and expectations are understood and solutions are developed to meet specific needs and objectives. Ongoing sustainability is a key outcome of BCE's project involvement and is achieved through its focus on knowledge and skills transfer that

will last beyond the life of a project.

Through the relationships that BCE and BCC have established with cities and organisations around the world, BCE is uniquely placed to deliver quality, value- adding services to enhance projects across a broad range of disciplines. In response to the high level of demand from both public and private sector organisations for the specialist skills held within BCC, BCE has developed a strategic sectoral focus in the key areas of Water and Wastewater, Transport, Urban Management and Governance in selected regions.

Components

Standard Drawings

Adoption of IPWEA drawings or local variants

Environmental

Sewerage

Stormwater

Recycling

Traffic

Signage

Adoption of Australian Standards

Intersections

3. Materials Laboratory

Ron Michel

RoadTek

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Fax: ++617 3403 6787

Email: ron.s.michel@mainroads.qld.gov.au

Henry Crichton

State Laboratory Business Manager

Main Roads

Ph: ++617 3403 4934

Fax: ++617 3403 6787

Email: martin.com.au

Plant Hire Services has been operating in as a commercial business unit of the Queensland Department of Main Roads since 1996 and is the largest Queensland supplier of earthmoving and associated plant.

Plant Hire Services provides the plant and equipment needs for a wide range of Government and private sector

organisations involved in road and civil construction, including many Local Governments.

The organisation has a staff of one hundred and ninety people managing assets with a replacement value in excess of \$120m. There are offices in fifteen strategic locations across the State supplying an extensive range of plant & equipment including:

Standard Drawings

The use of project management methodology is applied to the management of plant as the over-arching philosophy and incorporates process mapping of the project life-cycle.

Recycling

This is the plant fleet management process based on the plant life-cycle from acquisition to disposal and sets out the management of the plant throughout its lifetime. This includes whole of life costing.

Signage

This process deals with capital purchase planning, establishment of supplier arrangements and management of the purchase process

Sewerage

The introduction of plant into the fleet ensuring the management of compliance, workplace health & safety, data collection and operator / workshop induction procedures.

4. Project Management

Steve Howlum

Project Manager

Main Roads

Ph: 617 3403 4934

Fax: 617 3403 6787

Email: Steve.F.Howlum@transport.qld.gov.au

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Contract Administration

The use of project management methodology is applied to the management of plant as the over-arching philosophy and incorporates process mapping of the project life-cycle.

Road construction

This is the plant fleet management process based on the plant life-cycle from acquisition to disposal and sets out the management of the plant throughout its lifetime. This includes whole of life costing.

Drainage design & construction

This process deals with capital purchase planning, establishment of supplier arrangements and management of the purchase process

ACAD drafting

The introduction of plant into the fleet ensuring the management of compliance, workplace health & safety, data collection and operator / workshop induction procedures.

5. Operations Management

Ray Breust

General Manger

RoadTek Contracting

Ph: ++617 3403 4934

Fax: ++617 3403 6787

Email: raybreust@mainroads.qld.gov.au

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Road Maintenance

The use of project management methodology is applied to the management of plant as the over-arching philosophy and incorporates process mapping of the project life-cycle.

Recycling

This is the plant fleet management process based on the plant life-cycle from acquisition to disposal and sets out the management of the plant throughout its lifetime. This includes whole of life costing.

Signage

This process deals with capital purchase planning, establishment of supplier arrangements and management of the

purchase process

Sewerage

The introduction of plant into the fleet ensuring the management of compliance, workplace health & safety, data collection and operator / workshop induction procedures.

6. Financial Management

Contact: TBA

Ph: ++617 3403 4934

Fax: ++617 3403 6787

Email:

Plant Hire Services has been operating in as a commercial business unit of the Queensland Department of Main Roads since 1996 and is the largest Queensland supplier of earthmoving and associated plant.

Plant Hire Services provides the plant and equipment needs for a wide range of Government and private sector organisations involved in road and civil construction, including many Local Governments.

The organisation has a staff of one hundred and ninety people managing assets with a replacement value in excess of \$120m. There are offices in fifteen strategic locations across the State supplying an extensive range of plant & equipment including:

72. Implementation of the program requires technical assistance in the following areas:
- (ix) in supervising construction of selected subprojects and carrying out post-construction warranty inspections;
 - (x) in carrying out an analysis of road sector cost-recovery options and making recommendations for sustainable funding of road maintenance;
 - (xi) in establishing for PWD a road asset management system, based on a road/ bridge inventory and regular condition surveys, capable of determining optimum maintenance strategies to minimise life-cycle road agency and user costs;
 - (xii) in establishing improved financial management, budgeting, expenditure control, reporting and monitoring systems for PWD;
 - (xiii) in strengthening procedures for out-sourcing infrastructure maintenance works; and
 - (xiv) in developing a HRD and training plan for PWD to equip it with the necessary skills to fulfil its responsibilities for infrastructure management.

B. Fleet Management

73. The main objectives of the Road Sector Funding TA will be:
- to analyse options and make recommendations for establishing a system of cost recovery which attributes road-related costs fairly among users and is capable of funding road upgrading and maintenance on a reliable and sustainable basis; and

- to recommend a mechanism for channelling revenues from road user charges through a Road Fund, together with procedures for managing and operating the Fund in the interests of road users.
74. The tasks to be carried out are as follows:
- Allocate long-run road rehabilitation and maintenance costs among groups of road user, distinguishing between those costs that do not vary with the level of traffic, those that vary with vehicle utilisation and those that vary with the laden weight of vehicles
 - Examine alternatives and propose a preferred mechanism for establishing and managing a Road Fund to channel the user charges, and define appropriate mechanisms for collection of the charges
 - Evaluate the impacts of the alternative structures and levels of cost recovery on the road transport industry, its passenger and freight customers and the general level of inflation; compare these with the impacts of improved road maintenance under each option; recommend a schedule for implementing the preferred cost-recovery option and associated charges
 - Arrange and conduct workshops to explain the results of the analysis and the proposed cost-recovery policies to selected Ministers, senior decision-makers and key representatives in the public and private sectors

C. Road Asset Management

75. The main objectives of the Road Asset Management (RAM) TA will be:
- to establish a road/bridge inventory to form the basis for an agreed division of maintenance responsibilities between national and provincial governments
 - to establish sustainable procedures for monitoring the condition of national and provincial roads and bridges, identifying rehabilitation, reconstruction and routine and periodic maintenance needs, evaluating alternative maintenance strategies, and scheduling and budgeting for maintenance works
 - to train PWD staff in the use of these procedures and help integrate them with the Department's routine activities
 - to prepare a three-year rolling plan for road rehabilitation/reconstruction and maintenance, together with a plan for rationalising the plant and equipment fleet.
76. This will involve the following tasks:
- Establish a GIS-based inventory of all public roads and bridges, keyed to a location-referencing system that can be used to identify the location of key features
 - Recommended a functional road hierarchy as a basis for the division of maintenance responsibilities between national, provincial and municipal governments
 - Carry out classified traffic counts and road/bridge condition surveys, and design and establish routine procedures for updating these on a regular basis
 - Identify the needs for reconstruction or rehabilitation of roads/bridges that are not capable of being maintained on a routine basis
 - Develop and calibrate procedures for predicting road/bridge deterioration under a range of environmental conditions and traffic loads typical of Vanuatu
 - Develop, test and apply procedures for evaluating the impacts of alternative maintenance strategies on pavement/bridge performance and road user costs
 - Develop, test and apply procedures for determining an optimum maintenance strategy for realistic combinations of road/bridge condition and traffic and for

determining link-/bridge-based maintenance priorities on the basis of road/bridge conditions, traffic, costs and benefits

- Develop a prioritised three-year schedule of (i) road/bridge reconstruction and rehabilitation works and (ii) maintenance activities, to be the basis for a prioritised rolling three-year program of road/bridge reconstruction, rehabilitation and maintenance requirements
- Prepare estimates of the equipment requirements for the proposed reconstruction/rehabilitation and maintenance programs and, with account taken of the plant available in the private sector, develop a comprehensive plan for rationalising, supplementing and allocating PWD's vehicle/equipment fleet

D. Financial Management

77. The main objective of the Financial Management TA will be to overhaul PWD's system of financial management and reporting to ensure:

- more accurate and timely reports for management and external agencies;
- more accurate and reliable estimates for budgeting and contract preparation;
- more realistic estimates of the value of the public assets for which PWD is responsible;
- more effective control over financial commitments, expenditures and disbursements; and
- more appropriate monitoring of the cost-effectiveness of PWD's operations.

78. This will involve the following tasks:

- Review existing systems in PWD for budgeting, financial management and reporting, including the requirements of external agencies
- Establish an improved chart of accounts for PWD, consistent with government budgeting and financial management requirements
- Establish an asset valuation and depreciation system to reflect the appropriate value of assets
- Establish an estimation and job costing system for budgeting and control
- Establish systems for management and control of PWD's project-related and maintenance expenditures and associated payments procedures
- Establish integrated financial forecasting, planning, programming and budgeting systems, linked to technical planning procedures
- Establish appropriate management reporting systems/procedures and reports to meet the requirements of PWD's management and of external agencies

E. Contracts Management

79. The main objectives of the Contracts Management TA will be:

- to develop more efficient and effective procedures for outsourcing construction and maintenance works, including output- and performance-based forms of contract and improved contract documentation, tender, evaluation, supervision, performance-measurement and payments systems; and
- to develop procedures for broadening competition within the local contracting industry and measures to strengthen the capabilities of small-scale contractors and community labour groups.

80. This will involve the following tasks:

- Review PWD's existing contract specification, documentation and management systems and procedures
- Review the capabilities, equipment and resources of the local contracting industry
- Review the capabilities, equipment and resources of PWD's field divisions
- Develop improved contract documentation and management systems and procedures
- Review options and make recommendations for involving community labour in construction/maintenance works
- Prepare recommendations for strengthening the local contracting industry.

F. Human Resources Development and Training

81. The HRD and Training TA will commence once the key technical and financial systems and procedures have been developed under the RAM, Financial Management and Contracts Management TA subprojects. Its main objectives will be:

- to prepare a staff recruitment, development and training plan that will establish the necessary skills to fulfil PWD's functions and responsibilities on a long-term basis;
- to review training options and prepare a program to utilise existing training resources and new short-course programs to upgrade staff skills;
- to deliver a series of short courses to establish urgently-needed management and technical skills; and
- to develop a plan for upgrading the capacity of PWD to identify training needs and organise and deliver effective training programs.

82. The tasks involved are as follows:

- Review PWD's existing staffing and survey staff members' qualifications and experience
- Review PWD's procedures for assessing training needs and its existing training programs; identify and review the quality and capacity of available training courses and facilities in Vanuatu and nearby countries
- Assess the technical and managerial skills required by key PWD functions in headquarters and the field divisions
- Identify existing shortcomings and the additional skills and manpower resources needed to meet future skills requirements; prepare a detailed plan for supplementing available skills and developing new skills to meet future requirements
- Prepare proposals to strengthen available training programs and resources
- Deliver short courses to upgrade skills in the areas of highest-priority need
- Arrange for selected trainees to attend overseas short courses assessed as meeting urgent training requirements
- Prepare a plan to upgrade PWD's training function and provide an on-the-job program of training for trainers.

VIII. PROJECT JUSTIFICATION

A. Social and Economic Impacts

83. Outer island communities in Vanuatu, as elsewhere in the Pacific, are seriously disadvantaged by their isolation; their small size; the narrowness of their resource base; the

paucity of economic opportunities; and the inferiority of social services available to them. It is the perception of potential beneficiaries, clearly revealed in consultations with local leaders, individuals and government officials, that transport infrastructure should have the highest priority since it directly addresses the issues of high transport cost and unreliability of transport services.

84. The primary need is for enhanced cash incomes. These are expected to translate into improved health, nutrition, educational attainment and recreational opportunities; and into realistic alternatives to rural-urban migration for those beneficiaries who aspire to a richer, more diverse quality of life.

B. Institutional Benefits

85. PWD is at present unequipped to fulfil its responsibilities as manager of the country's infrastructure assets. It has neither the needed professional skills, the structure nor the financial resources. The provincial governments are in a worse situation, with no technical capability, token funding from Central Government and almost no revenue sources of their own.

86. Therefore an essential component of the proposed Outer Island Sector Development Program is institutional strengthening, mainly through provision of technical assistance. The schedule of inputs is selected to work in concert with PWD staff and advisors to mesh with the Department's ongoing Management Improvement Program (MIP).

87. It is hoped and intended that all the necessary assistance will be provided by other donor agencies through grant funding. Informal discussions have been opened with a number of donors and the response has been generally positive. There are few uncommitted funds immediately available in their forward programs, but there is a high probability that co-financing of the components of the proposed project will soon be possible.

C. Project Risks and Mitigating Measures

88. The risks associated with the proposed project fall into three categories:

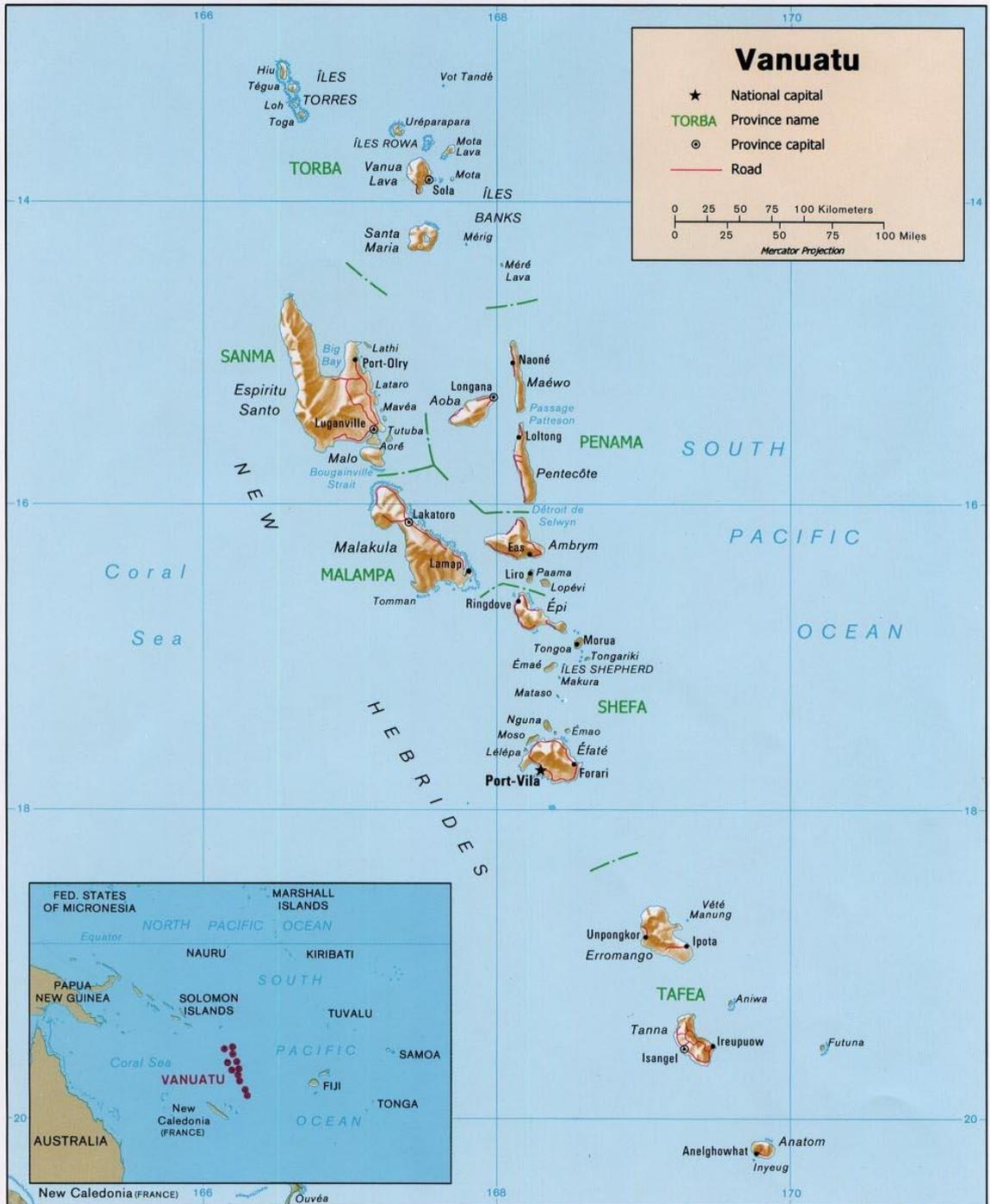
- Reduced operational funding – The operational budget is decreased in 2004 and any further cuts may severely affect the ability of the PWD to operate at the present scale.
- Motivation – The Project has to be driven from the Vanuatu side and the liaison is dependant upon the support of management within the PWD. At present this is achieved with the assistance of an AusAID financed project manager within the PWD.

89. The risk that beneficiaries will not respond as expected to opportunities created by the proposed project is a limited as the nature of the Project is to adopt existing systems into the PWD rather than to devise new concepts.

1. APPENDICES

Cited on
(page, para.)

1. **Vanuatu Map**
2. **Program Logical Framework**
3. **Provincial Profiles**
4. **Economic Sector Profiles**
10. **Subproject Design Considerations**
11. **Project Investment Plan**



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