

ASIAN DEVELOPMENT BANK

RRP: VAN 33151

**REPORT AND RECOMMENDATION
OF THE
PRESIDENT
TO THE
BOARD OF DIRECTORS
ON A
PROPOSED LOAN
TO
THE REPUBLIC OF VANUATU
FOR
THE CYCLONE EMERGENCY REHABILITATION PROJECT**

April 1999

CURRENCY EQUIVALENTS
(as of 31 March 1999)

Currency Unit	—	Vatu (Vt)
\$1.00	=	Vt129.85
Vt100	=	\$0.77

For the purpose of calculation in this report, an exchange rate of \$1.00 to Vt129 has been used.

ABBREVIATIONS

AusAID	-	Australian Agency for International Development
CRP	-	Comprehensive Reform Program
GDP	-	gross domestic product
JICA	-	Japan International Cooperation Agency
NZODA	-	New Zealand Official Development Assistance
PWD	-	Public Works Department

NOTES

- (i) The fiscal year of the Republic of Vanuatu coincides with the calendar year.
- (ii) In this report, "\$" refers to US dollars.

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LOAN AND PROJECT SUMMARY

Project Rationale

On 20 January 1999 Cyclone Dani struck Vanuatu, bringing strong winds and heavy rain, and causing flooding that severely damaged infrastructure on the islands of Efate, Malekula, and the western part of Santo. Roads, which were washed out, and bridges and river crossings, which were destroyed, sustained most of the damage. Temporary repairs have been made, but infrastructure remains disrupted, seriously hindering tourism and the transport of agricultural produce. A rapid response is required to ensure the resumption of economic and social activity, and prevent further damage from occurring.

Borrower

Republic of Vanuatu

Executing Agency

Public Works Department

Amount of Loan and Lending Terms

A loan, equivalent to \$2.0 million from the Bank's Special Funds resources, will have a term of 32 years, including a grace period of 8 years. The interest charge will be at the rate of 1 percent during the grace period and 1.5 percent thereafter, with equal amortization.

Period of Utilization

The utilization period will be 12 months, with retroactive financing from 25 February 1999.

Description of the Project

The objective is to restore economic activity and key infrastructure as quickly as possible. The loan will enable the Government to repair damaged infrastructure on the island of Efate, and will focus on the reconstruction of bridges, river crossings, and river training works. A flood prevention and protection plan will be developed.

Estimated Cost

The total cost of the rehabilitation program is estimated to be \$6.4 million equivalent.

Financing Plan

The European Union, and the governments of Australia, France, Japan, and New Zealand have been approached, and while no official commitment has been made, they are likely to contribute about \$3.5 million to the rehabilitation program. The Bank will contribute \$2.0 million under its emergency rehabilitation facility for small developing member countries.

Estimated Project Completion Date

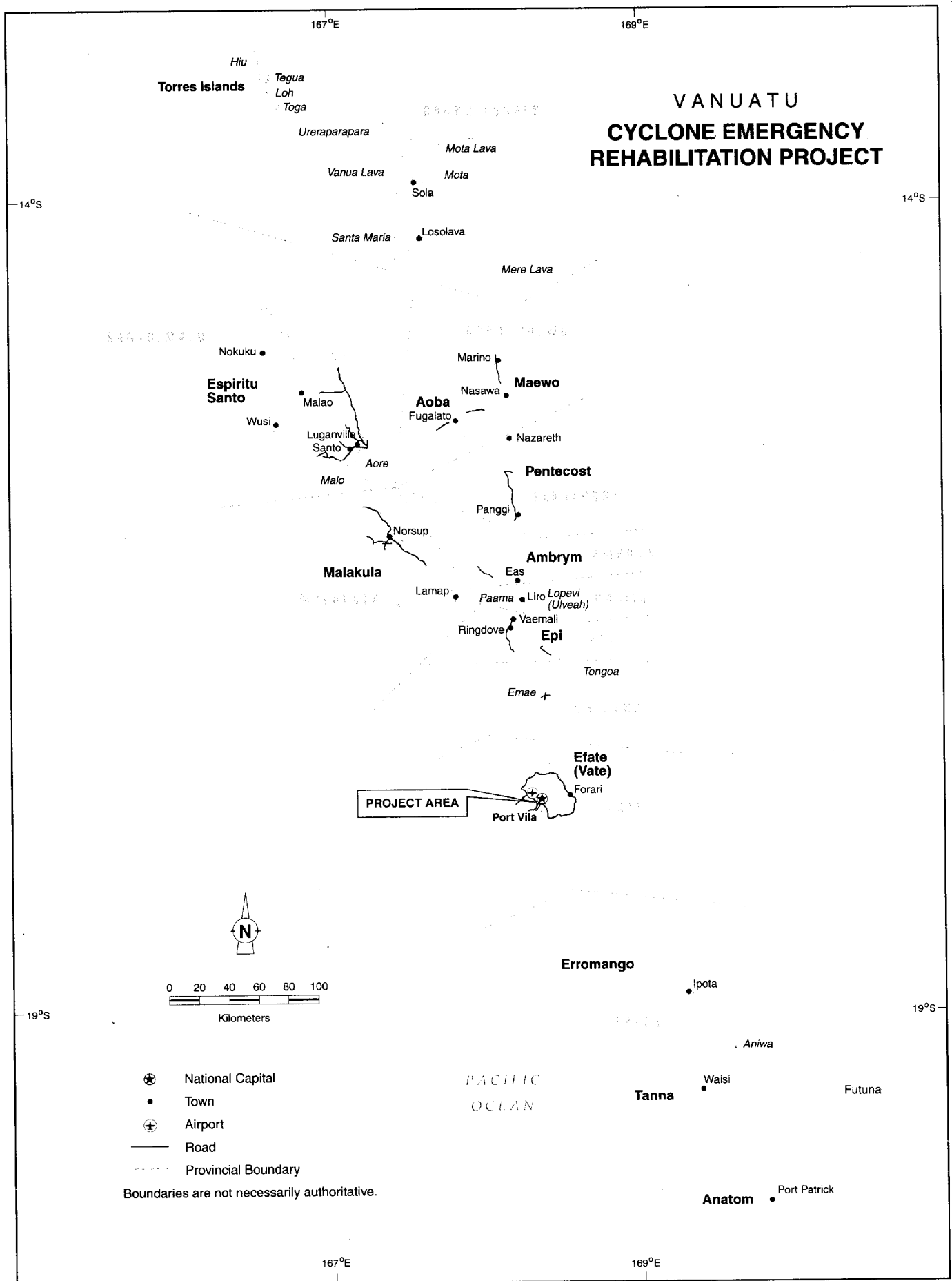
30 April 2000

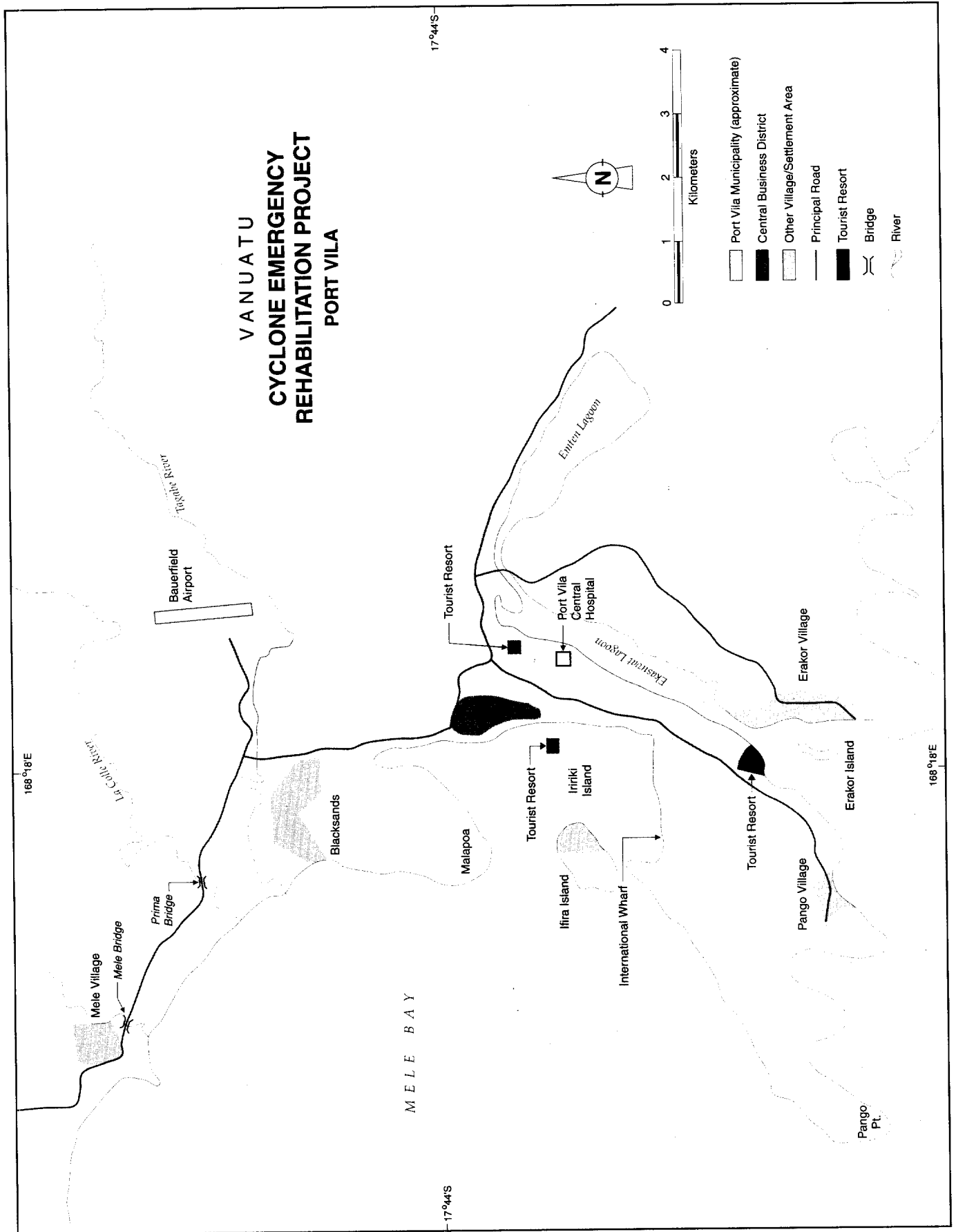
Procurement

In accordance with the Bank's *Guidelines for Procurement*

Disbursement

An imprest account will be established at the Reserve Bank of Vanuatu to facilitate timely release of loan proceeds. The imprest account will be replenished in accordance with the Bank's *Loan Disbursement Handbook*.





I. PROPOSAL

1. I submit for your approval the following Report and Recommendation on a proposed loan to the Republic of Vanuatu for the Cyclone Emergency Rehabilitation Project.

II. INTRODUCTION

2. In January 1999, tropical Cyclone Dani struck Vanuatu, severely damaging infrastructure on several of the country's islands. The Government immediately formed a National Disaster Management Committee to assess the damage and mobilize external and internal resources. At the request of the Government, Bank representatives attended a meeting convened in Port Vila on 27 January 1999, at which the Government outlined its overall requirements for assistance. The Government also contacted the Bank on 29 January 1999, seeking assistance but indicating that it would take some time to assess the full extent of the damage.

3. The Government acted quickly to assess the extent of the damage to infrastructure, implement emergency repairs, and prepare conceptual designs and cost estimates for necessary rehabilitation works. However, just as the Government was completing its assessment of required assistance, on 11 and 12 February 1999 a second cyclone passed to the west of the country, bringing with it heavy rainfall that compounded the damage caused by Cyclone Dani.

4. On 25 February 1999, the Government sent a formal request to the Bank for urgent financial assistance for rehabilitation of damaged infrastructure, for early restoration of normal socioeconomic activities. A Bank Mission was fielded from 2 to 31 March 1999¹ and conducted formal loan negotiations in the field with the authorized representatives of the Government. Both before and after the negotiations there was full consultation with other agencies involved in relief works.

5. The loan is proposed under the Bank's emergency rehabilitation facility for small developing member countries, which provides for a loan of up to \$2.0 million equivalent to be made in the event of a natural disaster. The facility also calls for abbreviated loan processing and approval procedures.

III. BACKGROUND

A. The Cyclone

6. Cyclone Dani struck Vanuatu on 20 January 1999. It brought strong winds and heavy rain, and principally affected the islands of Efate, Malekula, and the western part of Santo. While strong winds caused some damage, most of the damage to infrastructure was caused by flooding. Roads, which were washed out, and bridges and river crossings, which were destroyed, sustained most of the damage.

7. Temporary river and stream crossings have been constructed by the Government, using its own staff and resources, and by local villagers, using voluntary labor. However, the use of such temporary river and stream crossings is severely restricted during the present rainy season, because the water level in rivers and streams rises rapidly after rainfall and in some

¹ The Mission comprised E. Gordon Fox, then Senior Project Engineer, POHQ; Rishi Ram Adhar, Senior Project Implementation Officer, SPRM; and Cheolghie Kim, Project Specialist, SPRM.

cases severely damages or destroys the temporary works. The temporary works have high maintenance costs and do not constitute a permanent solution to the cyclone damage. Permanently engineered rehabilitation works are required.

B. Vanuatu and Its Economy

8. Vanuatu comprises a Y-shaped archipelago of 68 islands, with a total land area of 12,190 square kilometers (kms) and a population of some 182,000 people. It is located about 2,200 km northeast of Sydney, Australia, and is about 800 km east of the Solomon Islands, and west of Fiji. About 40,000 of the country's population live on the island of Efate where the country's capital, Port Vila, is located.

9. The country is predominantly rural, with about 80 percent of the total population living in rural and outer island areas. With a gross domestic product (GDP) per capita in 1998 of around \$1,300, and a local tradition of communal sharing of subsistence, there is little serious poverty. However, economic growth has been slow, and inflation is relatively low. Services and agriculture have dominated domestic production. Private sector investment remains weak, while the operational and financial performance of State-owned enterprises is poor. Large structural trade deficits persist as the country exports a limited range of mainly agricultural goods. Since mid-1998 a Bank-assisted comprehensive reform program (CRP) has been under way.² Fiscal deficits, which remained high during the past years, have stabilized since 1998 under the CRP. Prices have increased only moderately over the last few years, and exchange rates have been stable.

10. Between 1983 and 1997, Vanuatu's economy grew at an average annual rate of around 3 percent; this barely matched the population growth rate. The country has a relatively high cost structure, poor public services, and its infrastructure is underdeveloped. Structural weaknesses and volatile political developments have limited the country's economic growth prospects. During recent years, the economy's services sector, mainly supported by tourism, has contributed to about two thirds of GDP. The agriculture and forestry sector, based on products of cattle, copra, kava, and logging, supplied around 20 percent of GDP. Vanuatu's industry sector contributes less than 15 percent of GDP, reflecting a modest manufacturing base and a slowdown in construction activity. In 1998, the economy experienced some unhealthy developments. The Asian crisis had a negative impact on Vanuatu's exports both in the terms of demand and commodity prices. In 1999, the economy in real terms is envisaged to show continued slow or negative growth. The annual increase in the consumer price index has been maintained within 5 percent per annum. Economic indicators are tabulated in Appendix 1.

11. The economic outlook in the medium term is dependent on the Government implementing a consistent set of policies that are mutually reinforcing and consistent, and add credibility to the Government. The ongoing CRP is assisting the Government in this reform path. It is expected that construction of components under the Bank-financed Urban Infrastructure Project,³ together with improvements to Efate's circumferential road and other major projects, will accelerate in 1999.

² Loan No. 1624-VAN(SF): *Comprehensive Reform Program*, for \$20.0 million, approved on 16 June 1998.

³ Loan No. 1448-VAN(SF): *Urban Infrastructure Project*, for \$10.0 million, approved on 27 June 1998.

IV. PROPOSED REHABILITATION ASSISTANCE

A. Extent of Damage

12. The cyclone damaged transport infrastructure on the islands of Efate, Santo, Malekula, Maewo, and Ambae, placing a severe strain on transportation services. In Efate, farmers and agricultural producers, in particular, are finding it extremely difficult to move their produce and livestock to markets. The tourist industry is also affected by restrictions that the cyclone damage has placed on access to tourist resorts and destinations outside Port Vila. Damage was caused at Vanuatu's international airport (Bauerfield Airport, Port Vila), and threatens the operation of taxiways and runways.

13. Efate is roughly oval in shape, about 46 km long and 36 km wide. The capital, Port Vila, is located on the south of the island and is the center of most of the island's economic activity. The island's broad coastal plain supports a significant amount of agriculture. The island's circumferential coastal road serves the transport needs of agricultural producers, and is also a key accessway to tourist resorts on the island's coastline.

14. Four of the bridges and river crossings that were badly damaged or destroyed in the country are located on Efate's circumferential coastal road. One of the destroyed bridges, at Marona in the north of Efate, is a key link for the access of north coast farmers to Port Vila. Its destruction has caused severe inconvenience. When rainfall is heavy the river is impassable, and farmers have to wait until the river level has subsided, or travel long distances in the other direction. The tourist industry has also been affected by restriction of road access to resorts and tourist locations around the coast of Efate. The Government is giving high priority to the restoration and rehabilitation of infrastructure in Efate.

15. The Government received immediate assistance for emergency relief. This comprised (i) aerial reconnaissance for damage assessment shortly after the cyclone struck and design of temporary relief structures, provided by France; and (ii) building repairs, provision of mosquito nets, and emergency treatment of drinking water, provided by Australia, France, and New Zealand.

16. The total cost of the rehabilitation work required nationally is Vt830 million (about \$6.4 million equivalent), of which the Government is financing Vt31 million (about \$240,000 equivalent) from its own resources. The Government has requested assistance to meet the cost of permanent rehabilitation work on the islands of Malekula and Santo from bilateral and other multilateral agencies. Emergency rehabilitation assistance totaling Vt472 million (about \$3.5 million equivalent) has been requested from Agence Francaise de Developpement, the European Union, Australian Agency for International Development (AusAID), Japan International Cooperation Agency (JICA), and New Zealand Official Development Assistance (NZODA).

B. Selection of Works

17. The Bank's assistance will focus on rehabilitation of cyclone-damaged infrastructure in Efate. The Project will primarily focus on the reconstruction of road bridges, river crossings, and river training works. Additionally, a flood prevention and protection plan will be developed for the Mele catchment basin, from which floodwaters affect a coastal village at Mele, the bridges at Mele and Prima, and Bauerfield Airport.

18. Works were selected for Bank financing in accordance with the Bank's policy of financing urgent rehabilitation requirements, primarily to establish the level of service available before the cyclone. The proceeds of the emergency loan will be utilized to finance rehabilitation works for transportation infrastructure. The Project Framework is given in Appendix 2.

C. Rehabilitation Program

1. Description of Repair and Replacement Works

19. Repair and replacement works will include construction of retaining structures, river training works, and reconstruction of bridges and river crossings. A list of works that may be included in the Project is given in Appendix 3.

2. Cost Estimates

20. The estimated cost of the rehabilitation work to be financed by the Bank is \$2.0 million equivalent.

3. Financing Plan

21. The Government has requested an emergency rehabilitation assistance loan of \$2.0 million equivalent to finance all foreign expenditures and a portion of local expenditures. Local cost financing is justified by the Government's need to adhere as closely as is practicable to budget targets.

22. The proposed loan will cover about 30 percent of the total amount required nationally for rehabilitation works. The Government is approaching other financing sources for assistance for rehabilitation works on the islands of Santo and Malekula. While no official commitment has been made, potential sources include AusAID, about \$160,000 equivalent; Agence Francaise de Developpement, about \$1.5 million equivalent; the European Union, about \$1.8 million equivalent; JICA; and NZODA. The Government has financed immediate repair works for about \$240,000 equivalent.

4. Lending Terms

23. The term of the loan will be 32 years, including a grace period of 8 years. The interest charge will be 1 percent during the grace period and 1.5 percent thereafter, with equal amortization. The utilization period of the loan will be 12 months.

D. Implementation Arrangements

1. Executing Agency

24. The Executing Agency for the Project will be the Public Works Department (PWD). PWD has the principal functions of maintaining Government infrastructure, and implementing civil works associated with the development of infrastructure. It is the Executing Agency for the Bank-financed Urban Infrastructure Project.

2. Project Management

25. A project manager has been appointed within PWD. Additional technical and consulting services are to be financed by AusAID (aerial surveys, geotechnical expertise, and construction supervision), and Agence Francaise de Developpement (topographical surveys and construction supervision). Some technical services will also be provided by NZODA. PWD has the capacity to carry out detailed design of the rehabilitation of Marona Bridge, but requires assistance under the Project to carry out detailed design of other rehabilitation works.

3. Consulting Services

26. Two individual consultants will be financed under the loan. A civil engineer will be engaged for a period of four months to assist PWD in preparing contract documents, calling and evaluating tenders, and evaluating the contractors' design work. A hydrologist will be engaged for a period of six months to assist PWD in defining the hydraulic requirements for the rehabilitation works financed under the loan, establishing a general flood protection plan for the Mele catchment basin, and establishing a preventive action plan for alerting the population of localities in the Mele basin that are likely to be affected by flooding. The consultants will be selected in accordance with the Bank's *Guidelines on the Use of Consultants*. Outline terms of reference for the consultants are given in Appendix 4.

4. Procurement

27. Procurement of civil works and materials, and the hiring of plant and equipment, will be carried out in accordance with the Bank's *Guidelines on Procurement*. As early delivery is of paramount importance for the restoration of transport services, civil works will be procured through the Bank's international shopping procedures. Contractors will be required to complete the rehabilitation of Marona Bridge in accordance with PWD designs. Other civil works will be carried out under design and build contracts. Construction materials, and the hiring of plant and equipment, will be procured locally by direct purchase procedures, to expedite immediate rehabilitation measures.

5. Eligible Items

28. Eligible items for financing under the loan are

- (i) consulting services;
- (ii) civil works performed under contract;
- (iii) construction materials, including steel sheet piling, gabions, precast concrete culvert units, timber and miscellaneous materials for the preparation of boxing, specially fabricated precast concrete anchor blocks, cement, and aggregates for the production of concrete;
- (iv) plant and equipment, including the hire of bulldozers, excavators, and trucks; and
- (v) any other supplies, machinery, and equipment necessary for implementation of the Project.

6. Disbursement

29. The Ministry of Finance and Economic Management will establish a special imprest account at the Reserve Bank of Vanuatu, and will submit a withdrawal application for up to half of the loan amount, which will be disbursed by the Bank immediately once the loan agreement becomes effective. The imprest account will be replenished in accordance with the Bank's *Loan Disbursement Handbook*.

7. Advance Action and Retroactive Financing

30. The recruitment of consultants and advertisement of civil works tenders is proceeding under advance procurement action.

31. Retroactive financing will be permitted for eligible items procured from 25 February 1999 at 10% of the loan amount (\$200,000).

V. RECOMMENDATION

32. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank and recommend that the Board approve the loan in various currencies equivalent to Special Drawing Rights 1,464,000 to the Republic of Vanuatu for the Cyclone Emergency Rehabilitation Project, with a term of 32 years, including a grace period of 8 years, and with an interest charge at the rate of 1 percent per annum during the grace period and 1.5 percent per annum thereafter, and such other terms and conditions as are substantially in accordance with those set forth in the draft Loan Agreement presented to the Board.

TADAO CHINO
President

13 April 1999

APPENDIXES

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COUNTRY PERFORMANCE INDICATORS OF VANUATU
As of 15 March 1998

Item	1994	1995	1996	1997	1998
A. Economic Indicators					
Income and Growth					
GDP per Capita (\$, current) ^a	1,306	1,411	1,450	1,425	1,285
GDP Growth (% , in constant prices) ^a	2.5	3.2	3.2	2.5	-0.6
Agriculture	2.2	6.4	6.3	6.0	-0.7
Industry	7.3	6.4	2.4	1.1	-5.3
Services	1.7	1.4	2.3	1.6	0.5
Saving and Investment (% of GDP)					
Gross Domestic Investment	28.8	32.7	—	—	—
Gross National Saving	31.3	31.7	—	—	—
Money and Inflation					
Consumer Prices (percent per annum)	2.7	1.7	-0.1	5.1	4.1
Broad Money (M2) (percent per annum)	1.9	8.5	3.4	1.9	12.6
Government Fiscal Operations (Vt million)					
Recurrent Revenue	5,942	6,436	6,392	6,510	4,950 ^b
Recurrent Expenditure ^c	5,451	6,419	7,012	7,024	4,930 ^b
Surplus/Deficit (-)	491	17	-620	-514	20
Balance of Payments (\$million)					
Merchandise Imports (FOB)	74.7	79.4	81.1	79.0	73.1
Merchandise Exports (FOB)	25.1	28.3	30.2	35.3	36.2
Merchandise Trade Balance	-49.6	-51.2	-50.9	-43.7	-36.9
Current Account Balance	-19.8	-18.3	-26.9	-19.3	—
External Payments Indicators					
International Reserves (\$million) (end of period)	43.58	48.29	43.92	37.30	44.67
- Months of imports	7.0	7.3	6.5	5.7	—
External Debt Service (% of exports of goods & services)	1.6	1.5	1.4	1.5	—
External debt (% of GDP)	24.4	22.2	20.4	20.5	—
Memorandum Items:					
GDP (current prices, Vt million) ^a	24,962	26,633	28,056	29,307	29,781
Exchange Rate (Vt per \$)	116.4	112.1	111.7	115.9	127.5

FOB= Free on board; GDP= gross domestic product.

Source: Statistics Office Statistical Indicators Fourth Quarter 1998, Statistics Office Economic Indicators Update February 1999, International Monetary Fund, IFS March 1999, World Bank Global Development Finance 1999 (Advance Release), ADB Key Indicators of Developing Asian and Pacific Countries, 1998, Volume XXIX, Reserve Bank of Vanuatu (RBV) Quarterly Economic Review September 1998, RBV Financial & Economic News December 1998, February 1999, RBV Macroeconomic Policy Committee Meeting Document February 1999.

^a GDP data for 1996-99 are estimates and forecasts made by the Government in December 1998 for the budget.

^b For Jan-Sep 1998.

^c Includes principal loan repayment, redemption of bonds, and interest and service charges.

	1985	1990	Latest Year
B. Population Indicators			
Total Population (thousands)	129.1	147.3	182.0 (1998)
Annual Population Growth Rate (% change)	1.7	3.1	2.6
C. Social Indicators			
Total Fertility Rate (births per woman)	—	5.1 (1989)	4.4 (1996)
Infant Mortality Rate (below 1 year; per '000 births)	—	55	58 (1994)
Life Expectancy at Birth (years)	—	63 (1989)	65 (1996)
Female	—	62 (1989)	61 (1996)
Male	—	64 (1989)	69 (1996)
Adult Literacy (%)	19	32 (1989)	64 (1995)
Primary School Enrollment (gross)	—	63 (1994)	—
Secondary School Enrollment (gross)	—	16 (1989)	—
Child Malnutrition (% of under age 5)	—	—	23 (1994)
Population with Access to Safe Water (%)	—	87	—
Population with Access to Sanitation (%)	—	91	87 (1996)
Public Education Expenditure as % of GNP	—	5.0	91 (1996)
Public Health Expenditure as % of GDP	6.3	2.5	—
	3.5	—	4.9 (1995)
Human Development Index	—	0.533	2.3 (1993)
Human Development Ranking	—	106	—
	—	—	0.559 (1995)
	—	—	119 (1993)

GDP= gross domestic product; GNP= gross national product.

Source: UNDP, Human Development Indicators 1998; Bureau of Statistics, Statistical Bulletin, Statistical Indicators, 4th Quarter 1998 and past issues; Statistical Office, National Population Census 1989; UA Bureau of Census, World Population Projection 1994; National Planning and Statistics Office, Report on the 1979 Census of Population; ESCAP Statistical Yearbook 1995.

PROJECT FRAMEWORK

Design Summary	Performance Targets	Monitoring Mechanisms	Assumptions and Risks
Goals Return to prior levels of production and productivity	Economic indicators return to normal levels within one year of project completion	National economic indicators	Other necessary factors for productive economic activity will remain available
Purpose Resumption of normal transportation services	Return to normal observed levels of traffic density	Visual inspections Project Manager's reports Reports from tourism operators	Adequate finance and other resources will be available to complete all works
Outputs Restoration of bridges and river crossings	Five bridges and river crossings restored by 30 April 2000	Visual inspections Project Manager's reports	Design work and contracts will be completed on time
Removal of immediate flooding threat at Bauerfield Airport	Completion of restoration of flood training works at the airport	Visual inspections Project manager's reports	Design work and contracts will be completed on time
Reestablishment of flood warning systems in the Mele catchment area	Completion of flood training works and establishment of flood warning systems by 30 April 1999	Project manager's reports	Consultants' services will be completed on schedule
Inputs			
<ul style="list-style-type: none"> • Consultants • Supply of materials • Hire of equipment • Civil works 	<ul style="list-style-type: none"> • Civil engineering consultant • Hydrological consultant • All materials required for the implementation of civil works • Bulldozers, excavators, and trucks • Contracts for repair of five bridges and construction of floodway training works 	<ul style="list-style-type: none"> • Project manager's reports • Project accounts 	Consultants and contractors are competent

REPAIR AND REPLACEMENT WORKS

1. The following works may be financed under the Project:

- (i) **Marona Bridge** – construction of retaining structures, river training works, bridge approaches, and a new bridge deck; procurement of materials; and hire of plant and equipment.
- (ii) **Mele Bridge** – design and construction of new extension decks on the bridge approaches to increase the capacity of the floodway; and construction of retaining structures and river training works.
- (iii) **Epoc Bridge** – design and construction of a new small concrete bridge.
- (iv) **Prima Bridge** – design and construction of new extension decks on the bridge approaches to increase the capacity of the floodway; and construction of retaining structures and river training works.
- (v) **Bauerfield Airport** – design and construction of protection works, floodway training works, and airport perimeter road.

OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES

A. Individual Consultant – Civil Engineering

1. An individual consultant is required to help the Public Works Department with the following tasks:

- (i) prepare technical specifications and bidding documents including instructions to bidders, general and special conditions of contract, and quality assurance standards for design and build contracts for reconstruction of the Epoc Bridge, Mele Bridge, and Prima Bridge;
- (ii) prepare a shortlist of firms for the design and build contracts;
- (iii) call and evaluate tender, using the Bank's international shopping procedures with provision for postqualification of tenderers;
- (iv) arrange and implement pre-bid meetings; and
- (v) review and approve design work prepared by civil engineering contractors for emergency rehabilitation work on the island of Efate.

2. A qualified civil engineer, with experience in the design of river training works and small bridges, and contract management, is required for a period of four person-months

B. Individual Consultant – Mele Flooding and Preventive Plan

3. An individual consultant is required to help the Public Works Department with the following tasks:

- (i) define the hydraulic requirements for river protection of Bauerfield Airport, Mele Bridge, and Prima Bridge;
- (ii) establish a general flooding plan for the protection of roads, bridges, fords, spillways, and other structures; and
- (iii) establish a preventive action plan to alert and evacuate the population of localities that are likely to be affected by flooding, and to protect buildings and commercial operations.

4. The work will include, but will not necessarily be limited to

- (i) making site visits to assess the present hydrological characteristics of the Mele basin catchment area;
- (ii) collecting and assessing all relevant hydrological data held nationally and locally;
- (iii) computer modeling of the hydrological characteristics of the Mele catchment basin;

- (iv) assessing flooding frequencies, flood levels, and flood paths in the Mele catchment basin; and
- (v) recommending and evaluating options to reduce the risk of flooding, establish flood-warning systems, and minimize damage caused by flooding in the Mele catchment basin.

5. A qualified hydrologist, with experience in flood estimation and catchment control works, is required for a period of 6 person-months.