ADB

Report and Recommendation of the President to the Board of Directors

Project Number: 45094
March 2012

Proposed Loans
Democratic Republic of Timor-Leste: Road Network Upgrading Project

Asian Development Bank

CURRENCY EQUIVALENTS

The currency of Timor-Leste is the United States dollar.

ABBREVIATIONS

ADB	–	Asian Development Bank
CPS	–	country partnership strategy
IEE	–	initial environmental examination
JICA	–	Japan International Cooperation Agency
km	–	kilometer
LIBOR	–	London interbank offered rate
MOF	–	Ministry of Finance
MOI	–	Ministry of Infrastructure
PAM	–	project administration manual
PFM	–	public financial management
PMU	–	project management unit
RNDSP	–	Road Network Development Sector Project
SDP	–	Strategic Development Plan
SDR	–	special drawing rights
TA	–	technical assistance

NOTES

(i) The fiscal year (FY) of the government and its agencies ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2012 ends on 31 December 2012.

(ii) In this report, "$" refers to US dollars.

Vice-President	S. Groff, Operations 2
Director General	R. Wihtol, Pacific Department (PARD)
Director	R. Guild, Transport, Energy and Natural Resources Division, PARD
Team leader	R. Phelps, Senior Infrastructure Specialist, PARD
Team members	H. Everett, Financial Sector Specialist (Public Finance), PARD
	J. Ghimire, Counsel, Office of the General Counsel
	S. Lee, Principal Social Development Specialist (Gender and Development), PARD
	J. Roop, Senior Environment Specialist, PARD
	N. Sapkota, Safeguards Specialist, PARD
Peer reviewer	S. Date, Senior Transport Specialist, Southeast Asia Department

CONTENTS

PROJECT AT A GLANCE

1. Project Name: Road Network Upgrading Project **2. Project Number:** 45094-001

3. Country: Timor-Leste **4. Department/Division:** Pacific Department/Transport, Energy and Natural Resources Division

5. Sector Classification:

Sectors	Primary	Subsectors
Transport, and information and communication technology	√	Road transport

6. Thematic Classification:

Themes	Primary	Subthemes
Economic growth	√	Widening access to markets and economic opportunities
Capacity development		Institutional development

6a. Climate Change Impact

No Climate Change Indicator available.

6b. Gender Mainstreaming

Gender equity theme (GEN)	
Effective gender mainstreaming (EGM)	√
Some gender benefits (SGB)	
No gender elements (NGE)	

7. Targeting Classification:

General Intervention	Targeted Intervention		
	Geographic dimensions of inclusive growth	Millennium development goals	Income poverty at household level
√			

8. Location Impact:

National	High
Rural	Medium
Urban	Medium

9. Project Risk Categorization: Low

10. Safeguards Categorization:

Environment	B
Involuntary resettlement	B
Indigenous peoples	C

11. ADB Financing:

Sovereign/Nonsovereign	Modality	Source	Amount ($ Million)
Sovereign	Project loan	Asian Development Fund	9.2
Sovereign	Project loan	Ordinary capital resources	30.8
Total			40.0

12. Cofinancing:

No Cofinancing available.

13. Counterpart Financing:

Source	Amount ($ Million)
Government	13.7
Total	13.7

14. Aid Effectiveness:

No Aid Effectiveness available.


TIMOR-LESTE
ROAD NETWORK UPGRADING PROJECT
National Capital
District Capital
Town
Port
Project Road (upgrading works)
Project Road (feasibility and design)
National Road
District Road
River
District Boundary
International Boundary
Boundaries are not necessarily authoritative.
124°30'E
126°30'E
8°30'S
9°30'S
Atauro Island
Maumeta-Atauro
Strait of Wetar
Savu Sea
Timor Sea
Jaco Island
Cape Cutcha
Port Hera
DILI
Liquica
Tibar
Metinaro
Maubara
LIQUICA
Tokoluli
Gleno
Ermera
Fatubessi
Lacluta
Atabae
ERMERA
BOBONARO
Batugade
Maliana
Mota Ain
Oeleu
Bobonaro
Letetoho
Atsabe
Ainaro
AINARO
Hatudo
Zumalai
Fatululic
COVA-LIMA
Fohorem
Cova-lima
Suai
Cape Suai
Salele
Pante Macasar
Sakato
OECUSSE
Citrana
Tumin
Oe-Silo
Passabe
Remexio
Lequidoe
AILEU
Aileu
Turiscai
Maubisse
Aituto
Hato Builico
MANUFAHI
Same
Aissa
Betano
Alas
Laclo
Laclubar
MANATUTO
Manatuto
Laleia
Solibada
Natarbora
Lacluta
VIQUEQUE
Viqueque
Beacu
Uatulari
Vemasse
Venilale
Ossu
Baucau
BAUCAU
Mulaia
Laga
Quelicai
Baguia
Lassoralai
Iliomar
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This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.
110°00'E
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South China Sea
PACIFIC OCEAN
HALMAHERA
KALIMANTAN
SULAWESI
BANGKA
SUMATRA
BELITUNG
Java Sea
BURU
CERAM
IRIAN
KEPULAUAN ARU
JAVA
BALI
FLORES
SUMBAWA
SUMBA
TIMOR
TIMOR-LESTE
INDIAN OCEAN

11-4244 AV

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on proposed loans to the Democratic Republic of Timor-Leste for the Road Network Upgrading Project.[1]

2. The proposed project will (i) reconstruct or upgrade and climate proof about 59 kilometers (km) of principal national roads, (ii) expand the road maintenance program[2] of the Ministry of Infrastructure (MOI), and (iii) prepare a feasibility study and detailed design for 81 km of principal national roads. In collaboration with other development partners, the project will support the progressive upgrading of the whole of the national road network.

II. THE PROJECT

A. Rationale

3. A fourfold increase in government spending since 2006, supported by offshore petroleum revenue, has generated strong economic momentum in Timor-Leste. Gross domestic product (excluding the petroleum sector and the contribution from the United Nations) has grown at an average annual rate of 10.9% since 2006.[3] The construction sector has expanded as public investment levels have risen. Agriculture, which accounts for most employment, has also grown as productivity levels have increased and the area of land cultivated has expanded.[4] The road sector is in decline because of inadequate rehabilitation and maintenance.

4. The Strategic Development Plan (SDP), 2011–2030 aims to sustain double-digit rates of economic growth and fast track economic development. The vision for 2030 is a modern and diversified economy with high-quality infrastructure. The SDP envisages three pillars for development—social capital development, infrastructure development, and economic development. Increased public investment over the first 5 years of the SDP is intended to create the conditions necessary to attract private investment and ensure a private sector-led economy by 2030. Improvement of land transport is a key factor.

5. However, the concentration of opportunity in the capital, Dili, raises concern over the inclusiveness of the growth process. The concentration of the economic expansion in Dili is encouraging rural–urban migration and resulting in a high rate of youth unemployment and high demands on basic services. Diversifying economic activity beyond Dili will help stem these pressures and share the benefits of Timor-Leste's petroleum wealth more widely. This will be important if Timor-Leste aims to achieve an inclusive growth path and avoid the rising inequality experienced elsewhere in Asia during episodes of rapid economic growth.

6. Roads play a vital role in the economy and country integration of Timor-Leste. Roads are the primary mode of transport, carrying about 90% of passengers and 70% of freight. The core network comprises 1,426 km of national roads and 869 km of district roads. The national road network, linking the 13 national districts, comprises northern and southern coastal roads; and five roads traversing north–south, connecting the two coastal roads. The district roads link secondary population centers to the national roads. The core network is supplemented by 716 km of urban roads, most of which are in Dili. Rural roads, about 3,000 km in length, provide access to villages and more remote areas. Recent surveys indicate that almost the entire core

[1] The design and monitoring framework is in Appendix 1.
[2] Asian Development Bank (ADB). 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Fund Grant to the Democratic Republic of Timor-Leste for the Road Network Development Sector Project.* Manila.
[3] Real gross national income grew at 22.2% per annum on average over the same period.
[4] Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

road network is in an unmaintainable condition. Only about 8% of the core road network was assessed to be in fair condition, about 22% in poor condition, and about 70% in very poor condition.[5] The Road Network Development Sector Project (RNDSP), currently under implementation, targets improving this situation (footnote 2).

7. Transport services, for both passengers and goods, are provided by the private sector with minibuses and light trucks, but services are constrained by the narrow roads and difficult terrain in addition to the generally poor condition of the roads. These conditions result in high costs and unreliable services. Lack of regulation of the sector, lack of road safety awareness, and poor road conditions contribute to high accident rates. The vehicle fleet (excluding motorcycles) doubled between 2005 and 2009. The motorcycle fleet experienced a threefold increase. This rate of expansion is likely to continue in the short and medium term.

8. The MOI is responsible for planning, developing, and maintaining roads. The MOI's Directorate of Roads, Bridges, and Flood Control has only 12 engineers—seven at the headquarters in Dili and five in regional offices. Each regional engineer is assisted by up to 12 supervisors and assistant supervisors depending on the region. The Directorate of Roads, Bridges, and Flood Control's shortage of capable staff, assets, and funding in the districts severely limits its capacity to manage and maintain the road infrastructure. To address this skill shortage, the Asian Development Bank (ADB) is supporting the MOI with a multiyear technical assistance (TA) program and Japan is funding a twinning program with the Government of Indonesia to focus on technical and management training for MOI engineering staff.

9. To improve the performance of the road sector, the MOI, assisted by ADB, has developed the Medium-Term Road Network Development Program, the implementation of which started in 2010 with the RNDSP. The RNDSP is implementing rehabilitation and road maintenance in three districts and is supporting the development of systematic road maintenance (footnote 2). This support will be integrated with the project, which is located in the same districts.

10. Since the referendum on independence of Timor-Leste on 30 August 1999, ADB has been the lead development agency in the road transport sector. It has provided six TA projects, three project grants, and one sector grant to support the road sector development. ADB's country operations business plan, 2008–2010 directly tied development outcomes to the goals of the National Development Plan, predecessor of the SDP, which emphasized development of transport infrastructure.

11. The new country partnership strategy (CPS), 2011–2015[6] continues ADB's strategic directions in Timor-Leste by concentrating on infrastructure development and management. ADB plans to provide complementary assistance in the core specializations of finance, regional cooperation and integration, and education, and will support the private sector as a key driver of change to help Timor-Leste make the transition from a public sector-led economy.[7] Support provided through the CPS will help Timor-Leste achieve inclusive economic growth by helping to sustain a high rate of economic growth and by sharing economic opportunities across the population. ADB support for infrastructure, financial services, and skills training will help meet the needs of a growing economy and improve the competitiveness of the private sector. An emphasis on the provision of services outside the capital will support growth of agriculture and the rural economy. Poverty will be alleviated through the benefits of economic growth,

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[5] ADB. 2008. *Technical Assistance to the Democratic Republic of Timor-Leste for Preparing the Road Network Development Project.* Manila (TA 7100-TIM).

[6] ADB. 2011. *Country Partnership Strategy: Timor-Leste, 2011–2015.* Manila.

[7] The CPS addresses four of ADB's five core specializations, as identified in ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

particularly in rural areas, and by connecting the poor to markets and increasing the availability of basic public services to the poor.

12. The emphasis in the CPS on infrastructure reflects its importance to the achievement of the government's development priorities for 2011–2015 and ADB's established presence and comparative strength in infrastructure. ADB will continue in the role established under the previous country strategy of helping to coordinate capacity development and investment programming across infrastructure (particularly road transport, water and sanitation, and power), and helping to mobilize financial resources for infrastructure investment. This will improve connectivity, help increase the efficiency of movement of people and goods, and expand access to the basic services essential to development. The agriculture sector and rural areas more broadly will be key beneficiaries.

13. The project will support upgrading of Timor-Leste's priority sections of the national road network to accommodate rapid economic and social development. The project will finance high-priority road links identified by the Medium-Term Road Network Development Program, which was prepared under ADB's TA (footnote 5).

14. Lessons from ADB's previous projects are incorporated in the project design. The main lessons are (i) sector approaches have been useful in allowing the government to progressively expand its leadership in the road sector and in providing flexibility, (ii) sustainability requires attention to institutional capacity and long-term road maintenance strategies, and (iii) community participation in road works has been successful in extending the benefit of national road development to roadside communities.[8] The project will respond to a key performance evaluation report observation that past project interventions have not produced significant impacts because the "patch-and-mend" approach did not result in significant improvements. The project will improve specific routes through appropriately scaled reconstruction and upgrading.

15. The impact of the project will be considerably enhanced through collaboration with development partners, particularly the Japan International Cooperation Agency (JICA).[9] JICA will finance the upgrading of the road from Dili to Baucau, which, taken together with the ADB-financed project, will result in significant improvements to land transport along the north coast.[10] The World Bank will support the upgrading of the road from Dili to Ainaro and is expected to prepare its project during 2012. Taken together, about 235 km of road will be upgraded with development partner support.

B. Impact and Outcome

16. The impact of the project will be increased and more efficient movement of people and goods. The outcome will be that the MOI provides a more reliable and safer road network.

C. Outputs

17. Five key outputs will contribute toward achieving the project outcome and impact:

(i) **Upgrading and climate proofing.** National roads will be upgraded and climate proofed. The roads from Dili to Liquica (28.6 km) and Tibar to Gleno (31.0 km)

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[8] ADB. 2010. *Completion Report: Road Sector Improvement Project in Timor-Leste*. Manila; ADB. 2010. *Performance Evaluation Report: Emergency Infrastructure Rehabilitation Project Phases 1 and 2 in Timor-Leste*. Manila; and ADB. 2011. *Country Strategy Final Review: Democratic Republic of Timor-Leste, 2006–2010.* Manila.

[9] ADB, JICA, and the World Bank conducted a joint fact-finding mission in August 2011, following up on a joint consultation mission in November 2010 that explored cooperative ways of accelerating sector development.

[10] JICA financing for the Dili–Baucau road is expected to be approved in March 2012.

are core subprojects that will be upgraded. Feasibility studies and detailed designs of the road from Manatuto to Natarbora (81 km) will be prepared to facilitate a rolling program of road upgrading. Upgrading will include strengthening and widening existing sealed pavements from a width of generally less than 4.5 meters to 6.0 meters and provision of asphalt surfacing. Vulnerability to damage from severe rainfall, sea level rise, and other potential effects of climate change will be reduced through engineering countermeasures, including ensuring suitably sized drainage structures, raising of road levels that are flood-prone, and bioengineering to promote slope stability.

(ii) **Feasibility study and detailed design.** A feasibility study and detailed design for the future upgrading of a priority road link will be prepared. A feasibility study and detailed design suitable for ADB financing will be prepared for the road from Manatuto to Natarbora (81 km).

(iii) **Performance-based road maintenance contracts.** The civil works contractors will be responsible for maintenance of the upgraded road sections for 2 years after physical completion. Local contractors will be trained in performance-based maintenance and performance-based contracts will be used for future maintenance.

(iv) **Road safety and transport-related social issues.** Awareness of road safety will be increased by implementing a community-based road safety awareness program, including an education program for schools, drivers, road users, and the community; and implementing an HIV prevention program.

(v) **Efficient project management.** The project includes project management support for the implementing agency through strengthening of its project management unit (PMU).

D. Investment and Financing Plans

18. The project (inclusive of collaboratively financed components) is estimated to cost $146.66 million including taxes and duties, and financing charges during implementation (Table 1).

Table 1: Project Investment Plan
($ million)

Item			Amount[a]
A.	**Base Cost[b]**		
	1.	Civil works	37.10
	2.	Environmental and social mitigation	0.20
	3.	Consultants	
	a.	Project management	1.80
	b.	Feasibility, design, and construction supervision	5.50
	4.	Equipment	0.10
		Subtotal (A)	**44.70**
B.	**Collaboratively Financed Subproject[c]**		**93.00**
C.	**Contingencies[d]**		**8.18**
D.	**Financing Charges During Implementation[e]**		**0.78**
		Total (A+B+C)	**146.66**

[a] Includes taxes and duties of $1.00 million to be financed from government and Asian Development Bank (ADB) loan resources.
[b] In mid-2011 prices.
[c] Includes base costs, contingencies, and financing costs for the Japan International Cooperation Agency collaboratively financed project.
[d] Physical contingencies computed at 20% for civil works; and 10% for field research and development, training, surveys, and studies (ADB-financed project only).

[e] Includes interest and commitment charges (ADB-financed project only). Interest during construction for ADB's ordinary capital resources (OCR) loans has been computed at the 5-year forward London interbank offered rate plus a spread of 0.4% and at 1.0% per year for ADB Asian Development Fund loans. Commitment charges for an ADB OCR loan are 0.15% per year to be charged on the undisbursed OCR loan amount.
Sources: Asian Development Bank and Japan International Cooperation Agency estimates.

19. For the ADB-financed project, the government has requested a loan of $30.85 million from ADB's ordinary capital resources to help finance the project.[11] The loan will have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year (the interest and other charges during construction to be capitalized in the loan), and such other terms and conditions set forth in the draft loan agreement. The OCR loan from ADB will finance civil works, consultants' services, taxes and duties, late payment charges imposed by suppliers and contractors, bank charges, and interest during construction on OCR loan.[12] The government has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

20. For the ADB-financed project, the government has also requested a loan in various currencies equivalent to SDR9.15 million from ADB's Special Funds resources to help finance the project. The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the draft loan agreement.[13] The Asian Development Fund loan will finance civil works, consultants' services, taxes and duties, late payment charges imposed by suppliers, and contractors and interest during construction on the Asian Development Fund loan.

21. The government will contribute $13.66 million from its Infrastructure Fund[14] toward the cost of civil works, taxes and duties, and resettlement costs in respect of the ADB-financed project.

22. The financing plan (including for collaboratively financed components) is in Table 2. The government has assured ADB that it will meet any financing shortfall to ensure project outputs are fully implemented.

Table 2: Financing Plan

Source	**Amount** ($ million)	**Share of Total** (%)
Asian Development Bank (Asian Development Fund)	9.15	6.24
Asian Development Bank (Ordinary Capital Resources)	30.85	21.03
Japan International Cooperation Agency	68.70	46.85
Government	37.96	25.88
Total	**146.66**	**100.00**

Source: Asian Development Bank estimates.

[11] Timor-Leste has been eligible for OCR since 1 January 2012.
[12] Financing of late payment charges and bank charges will avoid potential administrative delays. The amount of taxes and duties (i) is within the reasonable threshold identified during the CPS preparation process, (ii) do not represent an excessive share of the project investment plan, and (iii) will only be financed in respect of ADB-financed expenditures. Financing of taxes and duties is material and relevant to the success of the project.
[13] The terms quoted are those currently prevailing and may be subject to change prior to loan negotiations.
[14] The Infrastructure Fund has been established from petroleum revenues to provide resources for expedited infrastructure development.

E. Implementation Arrangements

23. The existing ADB-financed PMU within the MOI will manage project implementation. The PMU will be reorganized to ensure sufficient capacity to manage the ongoing RNDSP and to create sub-units for the JICA and World Bank-financed projects. JICA and the World Bank will ensure that supplementary resources are made available to the PMU so that each partner maintains separate responsibility for major implementation inputs, and that the subprojects of all partners are efficiently implemented. Implementation arrangements will maximize the use of government systems. Close collaboration between development partners will reduce project management costs by facilitating the use of standardized approaches to engineering design standards, and safeguards assessment and monitoring.

24. The PMU is headed by a project manager and staffed with key professionals on a full-time basis, including a chief technical advisor, road construction advisor, road maintenance engineer, financial administrator (currently also the project manager), and a national environmental monitoring specialist. Supplementary staff to be recruited to the PMU and financed under the project include a part-time international resettlement specialist (3 person-months); national resettlement specialist (18 person-months); a national social, gender, and development specialist (36 person-months); a part-time international social and gender development specialist (3 person-months); and a part-time international environmental management specialist (3 person-months). The PMU will be responsible for the project financial management, including procurement and authorizing withdrawal applications. The existing RNDSP design and supervision consultant will be responsible for the detailed engineering design of the Dili-Liquica and Tibar-Gleno subprojects (under its existing contract). A consulting firm will be selected using quality- and cost-based selection for (i) supervision of the construction of the Dili-Liquica and Tibar-Gleno subprojects, and (ii) feasibility study and detailed engineering design of the road from Manatuto to Natarbora.

25. While the PMU will undertake the day-to-day project management, the government's Major Projects Secretariat and National Development Agency will review subproject quality, costs, and payments. The National Development Agency, which reports to the Prime Minister's Office, is a new and relatively inexperienced body. Therefore, the project will provide examples of international best practice through participation in regular assessments, experience of which can be transferred to implementation of other government projects. The government's Procurement Commission will oversee all major procurement.

26. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM).[15]

27. The proposed ADB financing for the project, even when combined with that of other development partners (about $140 million for approval in 2012) is greatly outweighed by the government's projected funding for capital expenditure during 2012–2015 of more than $500 million per annum. Attributable development results achievable in a sector where the demand is great will be limited. The project is suitable for scaling up through additional financing if assessed to be performing well. Use of additional financing will reduce incremental transaction costs, improve responsiveness, and enhance development effectiveness. The original loans will, therefore, be used to achieve readiness to expand the project through additional financing potentially with cofinancing from other development partners, by preparing designs, undertaking of safeguards due diligence, and building capacity.

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[15] Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period Estimated completion date	March 2012–December 2016 June 2017		
Management			
(i) Oversight body	Project steering committee		
(ii) Executing agency	Conselho de Administracao do Fundo Ifraestrutura		
(iii) Key implementing agencies	Ministry of Infrastructure		
(iv) Implementation unit	Project Management Unit, Department of Roads Bridges and Flood Control, 9 staff		
Procurement	International competitive bidding	2 contracts	$37.1 million
	Shopping	1 contract	$0.1 million
Consulting services	QCBS	337 person-months	$5.0 million
	ICS	8 contracts, 119 person-months	$1.2 million
	LCS or CQS	4 contracts	$0.3 million
Advance contracting	Advance contracting for (i) consulting services, (ii) civil works road upgrading from Dili to Liquica, and (iii) civil works road upgrading from Tibar to Gleno.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, CQS = consultants' qualifications selection, ICS = individual consultants selection, LCS = least-cost selection, QCBS = quality- and cost-based selection.
Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

28. Upgrading of subproject roads will include side slope stabilization, drainage improvement, and pavement reconstruction and widening. This will involve construction of retaining structures and use of bioengineering works for slope stabilization, improved drainage, and strengthened and widened road pavements. Widening will be carried out only where technically and economically feasible in light of challenging geotechnical conditions in some locations. There will be road safety improvements in populated areas.

B. Economic and Financial

29. Economic assessment of the subprojects has been undertaken utilizing the roads economic decision model, a derivative of the highway development and management model, which is more suited to low-volume roads with little heavy traffic. The two subprojects (Dili–Liquica and Tibar–Gleno) have been analyzed, based on the capital costs estimated after completion of detailed design. The subprojects were found to have a rate of return of 16%. Sensitivity tests were applied and the economic internal rates of return remained above 10% under all scenarios analyzed.[16]

C. Governance

30. Public financial management (PFM) performance was assessed in June 2010 using the public expenditure and financial accountability framework. That analysis found that solid

[16] Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

progress has been made in strengthening PFM systems. The improvements, though modest, were underpinned by real changes in work practices, legislation, and information technology systems. Notable improvements were made in the comprehensiveness of fiscal information, fiscal transparency, funding predictability, timeliness, and quality of bank reconciliations and financial statements. Substantial weaknesses in the PFM system, however, remain. Relative strengths of the Ministry of Finance (MOF) are diminished by gaps in the PFM system elsewhere. An independent, supreme audit institution has not been established, internal audit is almost nonexistent, the budget coverage is incomplete, and budget planning and implementation capacity in line ministries is weak. Orderliness of the budget process, development of sector investment strategies, multiyear budgeting, and procurement are areas where further improvement is required.

31. Capacity has been built both in the MOF and in line ministries for procurement, and a procurement unit has been established in the vice-prime minister's office. Competitive bidding as a standard procurement instrument is not universal with government-financed projects, though appropriate procedures are accepted and satisfactorily applied for procurement of goods, works, and services financed by development partners. Less competitive instruments, such as single-source selection and use of quotations, are prevalent for government-financed contracts, and are often legitimized by ad hoc decree legislation. There is still some way to go in strengthening procurement practice to improve both transparency and efficiency, and to achieve an effective balance between risk and accountability.

32. The Office of the Inspector General was established in 2000 with responsibility to oversee use of government resources. The Civil Service Act (2004) provides standards, principles, definitions, and guidelines for civil service administration; a code of ethics for civil servants; and an administrative disciplinary mechanism. A law creating the new Anti-Corruption Commission became effective in 2009 and the first anticorruption commissioner was appointed in 2010. However, the independence of these institutions needs to be assured and they need to be resourced effectively.

33. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MOF. The specific policy requirements and supplementary measures are described in the PAM.

D. Poverty and Social

34. The primary beneficiaries of the project are (i) road users, including vehicle drivers or passengers and/or nonmotorized transport users; (ii) households living in communities in the catchment areas of the upgraded road links that sell a range of cash crops and other agricultural produce; (iii) passenger and goods transport service providers and commercial truck drivers; and (iv) small businesses and traders including vendors at local markets, trade store owners, coffee and other produce buyers, and small- and medium-sized enterprises in the district capitals and towns. Key social service providers such as in the education and health sectors will also benefit from the road upgrading.

35. Women are generally excluded from infrastructure-related employment opportunities and decision making related to infrastructure development. The project is classified "effective gender mainstreaming" and is designed to ensure gender equality and allow women's empowerment by ensuring that the views and requirements of women are fully considered in the design of the subprojects. Women's involvement in all employment and training opportunities under the

project will be actively promoted.[17] Specifically, the project will encourage and facilitate (i) incorporation of women's views in the project design; (ii) awareness of gender and transport security, and HIV/AIDS; (iii) a reasonable quota for women's involvement in the construction work, directed toward unemployed widows, female heads of households with large numbers of dependents, and other vulnerable groups; and (iv) a quota for women's involvement in bioengineering and maintenance works.

E. Safeguards

36. **Environment.** The project is classified category B and uses a sector-like approach to environmental management. An environmental assessment and review framework and initial environmental examinations (IEEs) have been prepared for both subprojects. Both the environmental assessment and review framework and the IEEs will be used to guide development of future subproject IEEs. The project's environmental impacts are minor, site-specific, and temporary. They include (i) disturbance from dust arising from loading, unloading, and transportation of construction materials; (ii) noise; (iii) erosion and sedimentation from exposed surfaces during construction that may affect water courses; (iv) risks from the use and disposal of hazardous materials such as used fuel and lubricants; and (v) increased risk of accidents from increased vehicle movements. Mitigation measures have been incorporated in the subprojects, as outlined in the environmental management plans. The PMU will implement the environmental management plans and employ a full-time national environment specialist and a part-time international specialist to monitor and report on progress.

37. **Resettlement.** The project is classified category B. The upgrading of roads will involve widening and will require additional land. The government has endorsed a resettlement framework, which outlines the principles and procedures to purchase land through negotiation. All resettlement actions will be in accordance with ADB's Safeguard Policy Statement (2009). The design of the roads will avoid resettlement impacts wherever possible, and minimize impacts by exploring alternatives. The resettlement framework and resettlement plans prepared in accordance with the resettlement framework will aim to enhance, or at least restore, the living standards of affected persons; and improve the living standards of the poor and vulnerable affected persons.[18]

38. **Indigenous persons.** The project is classified category C. No significant difference in social or cultural identity exists among communities that will be served by the upgraded roads. No ethnic minority groups are expected to be affected by the project.

F. Risks and Mitigating Measures

39. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.[19] The risks can be managed and are mitigated by the design of the project. The intended benefits and impacts are expected to outweigh the costs.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Land acquisition delays the commencement of civil	Resettlement plans have been prepared in consultation with affected persons prior to commencement of civil works. Widening of the road will

[17] Gender Action Plan (accessible from the list of linked documents in Appendix 2).
[18] Resettlement Plan – Dili–Liquica Road, Resettlement Plan – Tibar–Gleno Road, and Resettlement Framework (accessible from the list of linked documents in Appendix 2).
[19] Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Risks	Mitigating Measures
works.	be limited so that significant impacts are avoided.
Difficult environment (high rainfall and unstable terrain) delays construction and results in additional costs	Experience with road design and hydrological modeling in mountainous terrain will be one of the key criteria for selecting the design and supervision consultants. Proven approaches and technologies will be used on the project, carefully selected to ensure their appropriateness to local conditions.
MOI in-house capacity for technical guidance and supervision is weak.	An existing and experienced ADB-financed project management unit within the MOI will be strengthened to implement this project.
Capacity in the MOI and through private contractors for implementation of road maintenance is insufficient.	MOI capacity for road maintenance will be strengthened through the ongoing Road Network Development Sector Project, this project, and those supported by other development partners. Construction contracts will include maintenance for 2 years after completion of construction. Main contractors will be required to train locally based contractors to undertake performance-based maintenance.

ADB = Asian Development Bank, MOI = Ministry of Infrastructure.
Source: Asian Development Bank.

IV. ASSURANCES

40. The government has assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

41. The government has agreed with ADB on certain covenants for the project, which are set forth in the loan agreements.

V. RECOMMENDATION

42. I am satisfied that the proposed loans would comply with the Articles of Agreement of the Asian Development Bank and recommend that the Board approve:

(i) the loan of $30,850,000 to the Democratic Republic of Timor-Leste for the Road Network Upgrading Project, from ADB's ordinary capital resources, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board, and

(ii) the loan in various currencies equivalent to SDR5,905,000 to the Democratic Republic of Timor-Leste for the Road Network Upgrading Project, from ADB's Special Funds resources, with an interest charge at the rate of 1.0% per annum during the grace period and 1.5% per annum thereafter; for a term of 32 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Haruhiko Kuroda
President

7 March 2012

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Increased and more efficient movement of people and goods	**By end 2017:** 40% increase in passengers using the project roads (2010 baseline: 2.6 million and 1.6 million passengers per annum between Tibar and Liquica and Tibar and Gleno, respectively) 30% increase in freight transported (2010 baseline: 160,000 and 170,000 goods vehicles per year of general cargo between Tibar and Liquica and Tibar and Gleno, respectively)	Annual traffic surveys by DBRFC	**Assumptions** Increased availability and quality of transport services after upgrading Satisfactory maintenance of project roads after upgrading **Risks** Deterioration in external conditions may depress domestic, social, and business conditions Increasing fuel prices prevent transport services from becoming economically viable
Outcome A more reliable and safer road network	**By end 2015:** 15% reduction in travel time on project roads (2012 baseline: 0.75 hours and 1.25 hours for Tibar to Liquica and Tibar to Gleno respectively to be updated by PMU for each subproject immediately prior to construction) 20% reduction of road accidents on project roads (2011 baseline: 50 and 50 accidents per annum between Tibar and Liquica and Tibar and Gleno, respectively)	Project completion report prepared by MOI National accident statistics produced by the PNTL	**Assumption** The government's transport division and road division are effective in planning and implementing transport policies.
Outputs 1. National roads will be upgraded and climate proofed.	By the end of 2015, the average road roughness on about 59 km of national roads (the project roads) is reduced from an average of 8 m/km to 4 m/km. At least 80% workers hired by contractors are from local areas, including at least 30% women in labor-based work.	Annual road condition surveys by DRBFC Project monitoring reports from MOI	**Assumption** The government remains committed to prioritization of upgrading of national roads (and selected subprojects) after elections in mid-2012. **Risks** Land acquisition delays the commencement of civil works. Difficult environment (high rainfall and unstable terrain) delays

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
			construction and results in additional costs.
2. A feasibility study and a detailed design for the future upgrading of a priority road link are prepared.	A feasibility study for the road from Manatuto to Natarbora (81 km) is prepared, in accordance with ADB guidelines, and submitted to MOI and ADB by October 2012. Detailed engineering design and bidding documents are prepared and submitted to MOI and ADB by January 2013.	Project monitoring reports Consultants reports to MOI and ADB	
3. Performance-based road maintenance contracts are introduced.	By December 2015, at least 50% of national roads receive routine maintenance under a performance-based contract in accordance with DRBFC's annual plan (2011 baseline: 0%). At least 10 locally based construction companies trained by PMU for road maintenance	Annual road condition surveys by DRBFC DRBFC road maintenance program annual reports	**Assumption** Road maintenance is adequately financed by the government. **Risk** Insufficient capacity in MOI and through private contractors for implementation of road maintenance
4. Awareness of road safety and transport-related social issues will be increased.	At least 80% of children and 80% of women in roadside communities receive road safety awareness education by 2014 100% of construction workers and at least 80% of roadside inhabitants receive gender and transport security, and HIV/AIDS awareness education by 2014	Records of road safety education delivered to schools maintained by the Ministry of Education Records of training of construction workers and roadside communities maintained by the Ministry of Health	
5. Efficient project management services are provided.	PMU personnel increased from 5 (2011) to 10 (2012) All PMU and DRBFC personnel participate in training on social and gender issues.	Employment records maintained by MOI Training records maintained by MOI	

Activities with Milestones	Inputs	
1. National roads will be upgraded and climate proofed.	**ADB:** $40.00 million	
1.1. Supervision consultants are recruited by May	**Item**	**Amount** ($ million)

Activities with Milestones	Inputs	
2012. 1.2. Land acquisition is completed by June 2012. 1.3. Civil works are commenced by July 2012. 1.4. Civil works are completed by December 2015. **2. A feasibility study and a detailed design for the future upgrading of a priority road link will be prepared.** 2.1. A feasibility study of the road from Manatuto will be prepared by October 2012. 2.2. Detailed engineering design and bidding documents are completed by January 2013. **3. Performance-based road maintenance contracts will be introduced.** 3.1. Road maintenance supervisors are appointed by DBRFC by June 2014. 3.2. Training for national road maintenance contractors is conducted by PMU by December 2014. 3.3. Draft road maintenance contracts for at least 50% of the national road network are prepared by December 2014 by PMU. 3.4. Road maintenance contracts are progressively introduced on national roads, with 50% covered by December 2015. **4. Awareness of road safety and transport-related social issues will be increased.** 4.1. Road safety education is delivered to roadside communities by December 2013. 4.2. HIV/AIDS education program is delivered to all construction workers and to roadside communities by October 2012 (or within 3 months of commencement of any subproject road). **5. Efficient project management services are provided.** 5.1. Additional staff are recruited to the PMU by June 2012. 5.2. PMU and DBRFC manage project implementation and monitoring. 5.3. Prior to construction of any subproject, PMU collects or measures baseline data required by the design and monitoring framework for each subproject. 5.4. On completion of any subproject, PMU collects or measures baseline data required by the design and monitoring framework for each subproject.	Civil works Consulting services Equipment Contingencies Financing charges **Government:** $13.66 million **Item** Civil Works Environmental and social mitigation (resettlement) Contingencies	25.73 7.30 0.10 6.09 0.78 **Amount** ($ million) 11.38 0.20 2.08

ADB = Asian Development Bank; DRBFC = Directorate of Roads, Bridges, and Flood Control; km = kilometer; m = meter; MOI = Ministry of Infrastructure; PMU = project management unit; PNTL = Timor-Leste National Police Force.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=45094-001-3

1. Loan Agreement: Ordinary Capital Resources
2. Loan Agreement: Special Funds Resources
3. Sector Assessment (Summary): Road Transport
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Gender Action Plan
11. Initial Environmental Examination: Dili-Liquica Road
12. Initial Environmental Examination: Tibar-Gleno Road
13. Environmental Assessment and Review Framework
14. Resettlement Plan: Dili-Liquica Road
15. Resettlement Plan: Tibar-Gleno Road
16. Resettlement Framework
17. Risk Assessment and Risk Management Plan

Supplementary Document

18. Subproject Eligibility Criteria and Selection Procedure