

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

COSTA RICA

**TRANSPORTATION INFRASTRUCTURE PROGRAM (PIT)
AND
FIRST ROAD INFRASTRUCTURE PROGRAM (PIV)**

(CR-X1007 AND CR-L1022)

LOAN PROPOSAL

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CONTENTS

PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING	1
A.	Background and results.....	1
B.	Objective, components, and cost	5
C.	Results matrix and key indicators	8
II.	FINANCING STRUCTURE AND MAIN RISKS.....	9
A.	Financing instruments	9
B.	Environmental and social risks and mitigation measures.....	9
C.	Fiduciary risk	11
III.	IMPLEMENTATION AND MANAGEMENT PLAN	12
A.	Summary of implementation arrangements.....	12
B.	Summary of arrangements for monitoring results.....	14

Annexes	
Annex I	Results framework
Annex II	Procurement plan
Annex III	Environmental classification and safeguards
Electronic references	
Required	
1. Procurement plan	
http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1434892	
2. Annual work plan (AWP):	
http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413972	
3. Monitoring and evaluation mechanism:	
http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413896	
4. Environmental and Social Management Report (ESMR)	
Program environmental assessment report:	
http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413793 Marco de Gestión Ambiental y Social para la Línea de Crédito [Environmental and social management framework for the credit line (ESMF-CCLIP)] (MGAS-CCLIP)	
http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413816 Informe de Gestión Ambiental y Social del primer programa a financiarse con la línea de crédito (CCLIP) llamado Programa de Infraestructura Vial [Environmental and social management report of the first CCLIP-financed program: Road Infrastructure Program (ESMR-PIV)]	
Optional	
1. Report on the institutional capacity of the executing agency:	
http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413893	

ABBREVIATIONS

CABEI	Central Bank for Economic Integration
CCLIP	Conditional Credit Line for Investment Projects
CONAVI	Consejo Nacional de Vialidad [National Roads Council]
ESMF-CCLIP	Environmental and Social Management Framework for the Credit Line
GDP	Gross domestic product
HDM	Highway Design and Maintenance Standards Model
ESMR-PIV	Environmental and Social Management Report for the road infrastructure program
IRI	International Roughness Index
IRR	Internal rate of return
LCF	Local Currency Facility
MOPT	Ministry of Public Works and Transportation
PIV	Programa de Infraestructura Vial [Road Infrastructure Program]
PND	Plan Nacional de Desarrollo [National Development Plan]
PPP	Puebla-Panama Plan
RICAM	Red Internacional de Carreteras Mesoamericanas [International Network of Mesoamerican Highways]
RVN	Red Vial Nacional [National Highway System]
SETENA	Secretaría Técnica Nacional Ambiental [National Technical Secretariat for Environment]
UGAS	Unidad de Gestión Ambiental y Social [Environmental and Social Management Unit]

PROJECT SUMMARY

COSTA RICA TRANSPORTATION INFRASTRUCTURE PROGRAM (PIT) AND FIRST ROAD INFRASTRUCTURE PROGRAM (PIV) (CR-X1007 and CR-L1022)

Financial Terms and Conditions				
Borrower: Republic of Costa Rica Executing agency: CCLIP: Ministry of Public Works and Transportation (MOPT). First program: MOPT, through the National Highway Council (CONAVI)			Amortization period:	25 years
			Grace period:	5 years
			Disbursement period:	5 years
Source	CCLIP (US\$)	Program (US\$)	Interest rate:	Variable
IDB (Ordinary Capital)	850 million	300 million	Inspection and supervision fee:	*
Local	200 million	75 million	Credit fee:	*
Total	1.05 billion	375 million	Currency: U.S. dollars from the Single Currency Facility	
			Option of converting to Costa Rican colones (CRC): (LCF)	
Project at a glance				
Objectives and description: The general objective of the credit line is to help boost the country’s competitiveness and to increase the economic and social integration of its inhabitants. The credit line will cover all of MOPT’s activities in the subsectors under its responsibility. The first specific operation will contribute to the general objective of the Conditional credit line for investment projects (CCLIP) and the content of the National Development Plan (PND) by making sustainable improvements in the level of serviceability of the national highway system (RVN). Mainly, this will be achieved by upgrading the conditions of the network of asphalt and gravel roads as well as its bridges. The specific objectives of the first operation are to: (i) increase the number of RVN roads in good repair by rehabilitating, reconstructing, and improving roads in average or poor condition; (ii) strengthen regional integration in the country by increasing accessibility; (iii) ensure they physical continuity and reliability of the road corridors over time; and (iv) strengthen the management capacities of the national roads authority, MOPT-CONAVI.				
Special conditions precedent to the first disbursement: None				
Special contractual clauses: The Environmental and Social Management Unit (UGAS) must be established before the first works contract is signed.				
Exceptions to Bank policies: None				
Project qualifies as: SEQ [] PTI [] Sector [] Geographic [] Headcount []				
Procurement: Policies for the procurement of goods and works financed by the IDB (document GN-2349-7), of July 2006; Policies for selection and contracting of consultants financed by the IDB (document GN-2350-7) of July 2006; and as established in the attached procurement plan.				
Verified by ESR on: May 2, 2008				

* The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. DESCRIPTION AND RESULTS MONITORING

A. Background and results

- 1.1 **Background.** The Government of Costa Rica asked the Bank to support its efforts to restore and upgrade its transportation infrastructure through short-, medium-, and long-term financing of investment projects. The government's National Development Plan (PND)¹ places priority on the restoration of such infrastructure and sets medium-term physical targets. Repairing the road network will take a long period of time and requires a steady stream of investments to have a significant and sustainable impact; the private sector must also be stimulated to efficiently manage maintenance of the road network. The conditional credit line for investment projects (CCLIP) coupled with specific investment programs are the best tools for responding to the request of the Government of Costa Rica. This document refers to the credit line and to the first program to receive financing under it.
- 1.2 **Socioeconomic overview.** The Costa Rican economy has shown considerable momentum in recent years, which has been reflected in moderately high growth rates. The gross domestic product (GDP) grew at an annual average growth of 6.1% during the 2003-2006 period. This situation was shaped by a very positive world scenario in which the country benefited, despite high oil prices, from elevated external demand, high liquidity in international financial markets, and high prices for certain export crops. In addition, improved collection of taxes and customs duties combined with the government's cost containment policy, which included a cutback in public investments, yielded an improvement in the fiscal imbalance: 2006 ended with an overall public sector deficit that had fallen to 0.5% of GDP. Although external and internal factors remained favorable in 2007, external conditions were not as positive as in earlier years. This produced a lower economic growth rate and, especially, lower growth in exports. The growth rate was 5% in 2007, and authorities are forecasting around 4% growth for 2008.
- 1.3 **The transportation system** is composed of the following subsectors: roads, ports, railways, and air transportation. The Ministry of Public Works and Transportation (MOPT) is the lead agency for transportation with national jurisdiction for all modes. In 1999, the MOPT launched a restructuring process to move it away from executing works and convert it into a lead and planning agency that provides the country with transportation infrastructure through five councils (Road Safety, Civil Aviation, Public Transportation, National Roads (CONAVI), and Concessions). To fulfill this new role, the MOPT's Senior Management is responsible, through its advisory units, for the comprehensive and coordinated planning, regulation, and control of the sector, through the formulation and drafting of sector policies.

¹ The PND is a government planning tool that comprises the public policies to be pursued to reach the development objectives of a given administration to ensure the country's well-being. It is binding in nature and is used for formulating the five-year plans. The five-year plans, in turn, are used to develop annual work plans, which are translated into the annual budgets of the institutions.

- 1.4 The National Roads Council (CONAVI) was created by Law 7798 for the purpose of planning, programming, administering, financing, implementing, and supervising the conservation and construction of the National Road Network (RVN). CONAVI is a fully deconcentrated agency under the MOPT with legal standing and instrumental and budget authority to administer the Roads Fund.²
- 1.5 Road transport is the principal means of transporting people and goods in the country. The RVN is made up of primary, secondary, and tertiary roads.³ The cantonal road network is made up of subsidiary roads, local streets, and unclassified roads. Costa Rica has one of the densest road networks in Latin America: its RVN totals approximately 7,503 km, of which 4,761 km are paved and 2,742 km are gravel or gravel and dirt. The cantonal road network totals nearly 28,481 km (4,305 km paved and 24,176 km gravel or gravel and dirt).
- 1.6 During the 1990s, macroeconomic policies to contain public spending led to drastic reductions in real terms in the investment budget for roads, in the context of structural adjustment programs with the International Monetary Fund (IMF). This resulted in a gradual deterioration of the network, a situation exacerbated by a series of obstacles to execution of works by force account or expeditious contracting because of a complex procurement process and limited budget flexibility.
- 1.7 Years of insufficient investment in highways has left the road system in extreme disrepair, with accidents on the rise and steadily increasing maintenance and operating costs. Taken together, these factors are having an adverse effect on the country's competitiveness. The following table shows the condition of the RVN under CONAVI's responsibility:

² The Road Fund is made up of the following taxes, revenues, and goods: (i) a special tax on the national or international distribution of petroleum-based fuels and energy (the rate was 15%); (ii) the equivalent of 50% of the revenues collected from the vehicle property tax, pursuant to Article 9 of Law #7088; (iii) the national and international loans duly approved by the Legislative Assembly as provided for by law; (iv) grants, and the gains or profits earned from investing the surplus; (v) income collected in the form of tolls on bridges and public roads not subject to public works concessions; (vi) fines for infractions of vehicle weight and dimension rules; and (vii) the resources transferred by the Ministry of Finance to implement Law 7088. Subsequently, the Tax Simplification and Efficiency Law (Law 8114) modified the destination of the single fuel tax, setting it at 33.5% of the annual yield on the revenues collected for this tax. Of this, 30% is earmarked for CONAVI and the remaining 3.5% for FONAFIFO (National Forestry Financing Fund). The law establishes that 75% of the 30% collected from the single fuel tax is to be earmarked for servicing the National Road Network (administered by CONAVI), specifically road conservation projects, routine maintenance, periodic maintenance, improvement, and rehabilitation; the remaining 25% is earmarked for the Cantonal Road Council (under the responsibility of the municipalities).

³ **Primary roads:** The network of main roads that function as corridors with relatively high volumes of traffic and a large proportion of international, interprovincial, or long-distance travel. **Secondary roads:** connect important cantonal seats not served by primary roads, as well as other population, production, or tourism centers that generate a large amount of interregional or intercantonal travel. **Tertiary roads:** channel travel to primary and secondary roads and are the main roads for traveling within a region or between important districts.

Condition	Asphalt-paved network		Surfaced network (gravel and dirt)	
	Length (km)	Roughness (IRI)	Length (km)	Roughness (IRI)
Good	1,229	Less than 2.8	50	Less than 6.0
Average	2,162	2.8 to 4.0	1,800	6.0 to 8.0
Poor	1,370	4.0 to 5.0	892	8.0 or more
Subtotal	4,761		2,742	
Total	7,503			

- 1.8 CONAVI's road conservation services seek to maintain national wealth, by preserving the roads' originally projected service life and improving road safety, serviceability, and convenience for users. Through CONAVI, the MOPT is investing heavily in road conservation: in 2006 it invested a total 22,496,700,000 colones (approximately US\$45.6 million; US\$6,100/km), and in 2007 investments totaled 54,998,900,000 colones (around US\$111 million; US\$14,800/km). Of the estimated budget for 2008, 25% is earmarked for rehabilitation and 10% is earmarked for specific reconstruction works and emergency services including placement of modular bridges, construction of retaining walls, and clearing of landslides.
- 1.9 The **country strategy** aims to further expand and improve infrastructure through actions that will reduce transportation costs, increase accessibility and improve road safety, with a view to boosting competitiveness. Addressing road network needs will take a long period of time and require a steady stream of investments to have a significant and sustainable impact and to induce the private sector to efficiently manage road network maintenance. The National Development Plan (PND) gives due priority to the maintenance, rehabilitation, construction, and improvement of the strategic road network, which is made up of roads that support tourism and production in the country. The MOPT has been developing a plan of short-, medium-, and long-term investments for its priority strategic road network. In order to enhance economic connectivity and competitiveness, the plan gives priority in the short term to rehabilitation of the road infrastructure that supports integration and forms part of the International Network of Mesoamerican Highways (RICAM).
- 1.10 A total of 1,084 km of the RICAM are in Costa Rica; 527 km of these correspond to the Pacific Corridor and 557 km are feeder roads and additional regional connections. The roads making up this network include 8,596 km of main corridors that support integration, as well as 3,219 km of additional feeder roads and regional connections. The road area includes Construction, rehabilitation, and improvement projects and works. The Mesoamerican Transportation Initiative⁴ has land, sea, and

⁴ In 2001, based on the work of the technical commission of the Mesoamerican Transportation Initiative of the Puebla-Panama Plan (PPP), and with Bank support and participation, a Memorandum of Understanding on the RICAM was drafted, establishing the advisability of adopting a common legal, institutional, regulatory, and operational framework for executing the initiative; it also spelled out the

air transport programs, and also addresses cross-cutting issues. The strategy of the Puebla-Panama Plan (PPP) is shaped around such initiatives and their projects, with the transportation sector as a priority.

- 1.11 **Rationale for Bank involvement.** There is a gap in road infrastructure between the supply of and demand for interventions of the asphalt-paved and gravel RVN under CONAVI's responsibility. An assessment of financial availability showed insufficient budget resources for rehabilitating, reconstructing, and upgrading the RVN, making foreign borrowing the only available source of funds for recovery of the network. This credit line and the first proposed program seek to bridge the infrastructure gap, optimize the use of available resources, and maximize the physical targets of road reconstruction, upgrading, rehabilitation, and maintenance in order to bring about a sustainable increase in the percentage of RVN roads in good repair. The credit line and the first program in support of efforts to restore and upgrade the RVN are consistent with the objectives and policies of both the National Development Plan (PND)⁵ and the Bank's strategy. In this context, the Bank aims to strengthen its presence in the country by becoming actively involved in financing the reconstruction, upgrading, and rehabilitation of transportation infrastructure.
- 1.12 **The Bank's strategy.** The program is consistent with the Bank's 2006-2010 country strategy with Costa Rica,⁶ the general objective of which is to deepen the process of economic and social development. The Bank will pursue this objective through activities in the following areas: (a) strengthening the macroeconomic and public expenditure management framework; (b) deepening the model for growth and integration into the global economy; and (c) creating opportunities for inclusive economic growth. The Bank's strategy for the second area of activity includes: (i) supporting basic infrastructure investment programs in the transportation and energy sectors; (ii) improving competitiveness and creating supply chains; (iii) narrowing regional development disparities; and (iv) boosting environmental management capacity.
- 1.13 The proposed program is consistent with the Bank's country strategy with Costa Rica: (i) It will contribute to developing a more efficient transportation system with physical infrastructure that has a better wearing surface and greater road safety conditions, which will facilitate and ensure the transport of goods and products from and to the centers of consumption, production, and export. (ii) Increased mobility of passengers and goods will boost competitiveness, ensuring effective interconnection with neighboring countries, and between the

highway corridors that comprise the road network for integration. In 2002, the Presidents of the member countries of the PPP approved creation of RICAM.

⁵ The PND identifies and envisages the road sector as an important catalyst for economic development. It recognizes that current road conditions are unacceptable, and places priority on promoting their restoration in the short term.

⁶ IDB: Country Strategy with Costa Rica (2006-2010). CP-3267-1 (December 2006).

country's production regions; it will also improve access to the country's tourism areas.

B. Objective, components, and cost

- 1.14 The overall objective of the credit line is to contribute to boosting the country's competitiveness and to increasing the economic and social integration of its inhabitants. The credit line will cover all of MOPT's activities in the subsectors under its responsibility, including planning and providing support to municipal governments. The scope of each specific program to be financed by the CCLIP will depend on what the MOPT needs to develop a more efficient transportation system with better physical infrastructure in the different subsectors under its responsibility.
- 1.15 Under this multisector CCLIP, individual operations may be financed in the different subsectors under the MOPT, including road, port, railroad, and air transportation, that have independent entities in terms of execution and budget allocation and that are under the ministry's responsibility. The road sector includes the national, local, and urban network (under CONAVI, the Public Works Division, and the Public Transportation Council, respectively), the port sector (Maritime Port Division), the railroad sector (National Concessions Council), and the air transport sector (Civil Aviation Division). The activities to be financed under the various operations include rehabilitation, reconstruction, and improvement of infrastructure and management strengthening in the agencies implementing the operations.
- 1.16 The first specific operation will contribute to achieving the general objectives of both the CCLIP and the PND, through sustainable improvements in the serviceability of the national road network (RVN), principally by upgrading the condition of the network (both asphalt-paved roads and gravel roads) and its bridges. The critical sections will be dealt with comprehensively in order to improve road safety. The specific objectives of the first operation are to: (i) increase the number of RVN roads in good repair through works to rehabilitate, reconstruct, and upgrade roads that are in average or poor condition; (ii) improve the country's integration with the region by increasing accessibility; (iii) ensure the physical continuity and reliability of the road corridors over time; and (iv) strengthen the management capacity of the MOPT-CONAVI, as the national agency in charge of roads.
- 1.17 Sustainability of the CCLIP and the specific operations will require strengthening the MOPT and its competent organs in the various sub sectors under its responsibility, providing the technical and operational capacity to ensure their effectiveness and efficiency. New procurement mechanisms will be sought to enable it to meet its objectives.
- 1.18 The first CCLIP program will upgrade the conditions and state of the RVN under the responsibility of CONAVI, a fully deconcentrated agency under the MOPT. The first program will include works to upgrade, reconstruct, and rehabilitate approximately 500 km of roads and bridges, both asphalt-paved and gravel, and to

provide periodic and routine maintenance. This represents 10% of the asphalt-paved RVN. CONAVI, as the counterpart, is responsible for the periodic and routine maintenance of the RVN, and the program will support it in its progress towards maintenance contracts based on service standards for sectors of the RVN that will be rehabilitated, reconstructed, and improved.

- 1.19 The total amount of the CCLIP is US\$1.05 billion, of which the Bank will contribute US\$850 million and the local counterpart US\$200 million. The first operation will be for US\$375 million, with the Bank providing US\$300 million and the local counterpart US\$75 million; it will be a multiple-works operation.
- 1.20 **Criteria for eligibility of works.** Because the program is a multiple-works operation, all works covered by it must meet the following eligibility criteria: (i) the selected segments must form part of the RVN; (ii) they must have been given priority by the MOPT and included in the National Development Plan; (iii) their economic internal rate of return must be equal to or greater than 12%; and (iv) they must satisfy the program's socioenvironmental requirements.
- 1.21 Following is a description of the program's components.

Component 1. Engineering and administration (US\$30 million)

- 1.22 *Engineering studies and designs:* includes expenditures associated with economic, technical, and environmental feasibility studies, and engineering designs to define and prepare the works of the program. *Technical and environmental supervision of works:* to be conducted by consulting firms specialized in the technical supervision of road works; these firms will be responsible for ensuring compliance with the work schedule, the quality of the works, and compliance with technical specifications. *Administrative costs:* the services and activities that will be the responsibility of CONAVI, the agency in charge of program execution. *Financial audit:* the cost of external financial audits will be covered entirely by Bank resources.

Component 2. Support for management tools and capacity (US\$2.5 million)

- 1.23 Under this component, support will be provided for developing and consolidating a modern and sustainable management system for the RVN. The following activities will be financed: (i) support for road planning, among others, to include traffic counting throughout the network, an International Roughness Index (IRI) survey along 4,500 km of the paved RVN, and training of MOPT staff in the use of the HDM-4 model; (ii) implementation of a maintenance administration system, which will make it possible to survey the maintenance needs of each road, quantify the amount of maintenance works needed, estimate the financial requirements of network maintenance, and supervise and update the maintenance work performed on each road; (iii) development of a pilot operation on maintenance standards, and training of CONAVI staff on specific aspects of maintenance standards; and (iv) upgrading of environmental and sociocultural management at MOPT and

CONAVI by providing training and equipment to ensure that these issues are effectively addressed in the projects.

Component 3. Direct costs (US\$342.5 million)

- 1.24 The program includes the rehabilitation, reconstruction, and improvement of approximately 500 km of asphalt-paved roads and surfaced (gravel and dirt) roads of the RVN, as well as bridge rehabilitation and reconstruction, road safety activities, both comprehensively with the execution of civil works and through the improvement of critical sections, and routine maintenance. The activities are described below:
- 1.25 *Rehabilitation of asphalt-paved roads:* This includes resurfacing, deep patching, sealing of existing wearing course, rehabilitation of drainage systems, pavement markings and road signs, and engineering works. *Improvement and reconstruction of asphalt-paved roads* includes activities to improve roads' horizontal or vertical standards, width, alignment, curvature, or longitudinal slope in order to boost road capacity, the speed of traffic, and vehicular traffic safety. It will include pavement markings and road signs, and road safety in population centers (pedestrian crossings, bicycle paths to separate pedestrian and bicycle traffic from vehicular traffic, and road safety devices such as impact energy dissipation mechanisms).
- 1.26 *Rehabilitation of surfaced roads:* This activity will include roadway stabilization works, patching, shaping, spreading of granular material, construction of drainage systems, road geometry improvements, pavement markings and road signs, and minor engineering works. To guarantee permanent serviceability, the works will seek to restore the physical accessibility of roads, providing them with suitable operational and serviceability conditions. *Improvement of surfaced roads:* works will be financed to change the standard from surfaced to asphalt-paved.
- 1.27 *Bridge rehabilitation, improvement:* This activity will finance the reinforcement, widening, or reconstruction of bridges of the RVN that have deteriorated due to the lack of investment on preservation, to the point of becoming serious obstacles or risks in the road network; or adaptation of bridges to meet new design standards.
- 1.28 *Road maintenance:* This activity will start immediately after roads have been rehabilitated, reconstructed, and/or upgraded to meet technical standards that ensure road stability and durability. It will include road conservation practices for attaining the full service life of road designs, through the application of effective socioenvironmental practices and participation of the population. The paved network will be maintained through two different mechanisms: (i) comprehensive maintenance: based on 3-year contracts for periodic and routine maintenance; and (ii) by network: based on 2-year contracts for routine maintenance and emergency service. Under this program, every rehabilitated or improved road will be included in a routine maintenance management system. This component will be financed entirely by the counterpart with resources CONAVI receives from the Road Fund. It includes maintenance of roads rehabilitated by the program, which will be monitored for the purpose of adjusting the mechanisms designed for this purpose.

- 1.29 **Cost.** The total cost of the program is US\$375 million, of which US\$300 million (80%) will be financed by the Bank. The remaining US\$75 million (20%) will be provided by the local counterpart, from CONAVI resources. Estimated program costs, by component, are shown in the table below, in thousands of U.S. dollars.

Investment category	IDB	Local	Total
1. Engineering and administration	25,000	5,000	30,000
Engineering studies and designs	6,750		6,750
Works supervision	18,000		18,000
Program administration		5,000	5,000
Financial audit	250		250
2. Support for management capacity and tools	2,500		2,500
3. Public works	272,500	70,000	342,500
Road rehabilitation, improvement, and reconstruction	252,500		252,500
Bridge improvement and/or reconstruction	20,000		20,000
Road maintenance	0	70,000	70,000
4. Inspection and supervision fund	0		0
TOTAL	300,000	75,000	375,000

C. Results matrix and key indicators

- 1.30 The outcomes of the program are related to obtaining sustainable conditions for the transportation of people and goods. More specifically, the program aims to contribute to improving road management as reflected in easily measurable, objective indicators linked to the program's main economic benefits. These include reduction in users' travel time and vehicle operating costs. Below is a summary of the principal specific outcomes expected of the program.
- 1.31 The principal expected outcomes for the first operation are: (i) improvement in the RVN serviceability; (ii) reduction in travel time; and (iii) decrease in road accident rate. All of these are essential for improving the competitiveness of the Costa Rican economy.

Key indicators	When measured	Reason for their selection
20% reduction in the number of days that the roads are impassable, as compared with baseline for each segment	Two years after completion of each work	To confirm that financial and resource investments are operational and to guarantee a safer and more efficient transportation infrastructure.
10% reduction in the average travel time between origin and destination on asphalt-paved roads, and 20% reduction on surfaced roads, as compared with baseline for each segment		
Improved serviceability conditions for paved infrastructure From IRI ⁷ =5.5 to IRI=2.0	During program implementation	To confirm improvements in the quality of the wearing course, and direct benefits to daily transportation users
Improved road maintenance management on roads covered by the program Status of road maintenance: From good 0%, average 50%, and poor 50% to good 75%, average 25%, and poor 0%		To verify changes in the maintenance of the road network covered by the program.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 The first program under the CCLIP will be executed as an investment loan with a five-year disbursement period. The credit line will be implemented, in principle, through six individual loan operations. The credit line will be valid for 12 years, starting with the entry into force of the CCLIP agreement.

B. Environmental and social risks and mitigation measures

- 2.2 The Government of Costa Rica has a very complete environmental legal framework in place with its Environment Act (Law 7554); its principal instrument is the General Regulations on Environmental Impact Assessment Procedures (Decree 31849). The Ministry of Environment and Energy (MINAE), through the National Technical Secretariat for Environment (SETENA), is responsible for the country's environmental matters. SETENA is charged with requiring and analyzing environmental impact assessments; recommending actions to minimize negative impacts on the natural and social environments; and ensuring compliance with the provisions contained in environmental licenses or feasibility studies. In general, all projects of any nature must be submitted to SETENA.
- 2.3 Pursuant to Bank guidelines contained in the environment and social and safeguards compliance policies, an environmental and social management framework (ESMF-CCLIP) was designed during the preparation of the CCLIP, in coordination with the MOPT and its officers in charge of environmental and social management. In addition, a social and environmental management report was prepared for the first program to be financed by the Road Infrastructure Program CCLIP (ESMR-PIV).

⁷ International roughness index.

- 2.4 The principal objective of the ESMF-CCLIP is to serve as a guide for ensuring that environmental and social variables are included throughout the “project cycle” of the works financed with resources from the CCLIP, in order to ensure their environmental and social sustainability, and comply with both national environmental legislation and the Bank’s environmental and social safeguards policies. The ESMF-CCLIP includes: (i) diagnostic assessment of the legal and institutional framework governing the implementation of the CCLIP; (ii) environmental and social profile of the country in terms of relevant socioenvironmental aspects; (iii) introduction of methodologies, tools, and instruments for the socioenvironmental evaluation of road projects; (iv) establishment of procedures and responsibilities for applying the socioenvironmental management system throughout the project cycle, including the system for monitoring and supervising implementation of environmental and social management plans; and (v) draft plan for strengthening socioenvironmental management capacity at the MOPT.
- 2.5 The ESMR-PIV contains, among other things: the general findings of the program’s environmental and social assessment; the findings of the review of the Bank’s policies and safeguards; the environmental and social documents drawn up during program preparation; the socioenvironmental assessment of a sample of projects proposed for year one of the program; and an analysis of the capacity for environmental and social management of CONAVI, as the institution responsible for executing the PIV, and the respective institution-strengthening measures.
- 2.6 The projects proposed in the PIV seek to improve and/or rehabilitate existing roads. These include small- to medium-sized works not expected to have significant socioenvironmental impacts beyond those stemming from the execution of the works per se; such impact on the natural and/or social environment will be prevented, mitigated, and/or offset by implementing appropriate measures envisaged for this purpose. In accordance with the Bank’s Environment and Safeguards Compliance Policy (OP-703), the program has been classified as a Category B operation.
- 2.7 The findings of the socioenvironmental screening of the sample of five projects determined that the significance of the environmental impact of one project is moderate (Category B1), mainly because it crosses a mountainous area and there is a risk of geological instability. The significance of the environmental impact of four of the projects was determined to be low (Category B2). Based on that classification, terms of reference were drawn up during the program preparation stage for conducting the necessary environmental studies. Thus, since the Paquera–RN 21 section was classified as Category B1, it will require an Environmental Management Plan Projection. The other sections (Río Lepanto–Jicaral; Santa Cecilia–Birmania; Gloria–Loma; and Brown–Pitier) only require an affidavit of environmental commitments because they were classified as Category B2 in the preliminary analysis. These studies are already under way and are expected to be completed in June. They will include a schedule of proposed mitigating measures,

the costs, who will be responsible for implementing them, and the monitoring and supervision system for the works in line with the ESMF. The cost of executing the measures proposed in the ESMPs will be included in the costs of the projects. With regard to social impact, only two of the five projects in the sample (Paquera–RN21 and Birmania–Santa Cecilia) require the design of a simple action plan for right-of-way release, with specific guidelines for acquiring small plots of land from bordering farms for the localized improvement of geometric design, and for reestablishing some “live fences” to mark property lines. None of the projects in the sample will have a direct impact on dwellings or people. Furthermore, the execution of project works under this program may not start unless the socioenvironmental studies have been conducted in accordance with the ESMF and SETENA, as the environmental authority, has ruled that the specific project proceed.

- 2.8 According to Bank policy, for Category A projects that require an Environmental Impact Assessment (EIA) the executing agency will submit the terms of reference and the final EIA report for the Bank’s nonobjection.
- 2.9 The program has funds for strengthening environmental and social management at CONAVI that are earmarked to support and promote its initiative to create an Environmental and Social Management Unit (UGAS). On 31 March 2008, CONAVI approved its new structure, which includes the UGAS, currently in the process of being established. Establishments of the UGAS is a special precedent condition to the signature of the first works contract.

C. Fiduciary risk

- 2.10 No institutional or fiduciary problems are anticipated, given the executing agency’s experience with similar programs. The MOPT, through CONAVI, executes large budgets and has experience contracting works with the private sector. CONAVI will receive support from enterprises for supervising the works. Institution-strengthening actions have been included to reinforce CONAVI’s organizational structure and management capacity (paragraph 1.23). In addition, the institutional assessment of CONAVI showed good budget execution, effective management of competitive bidding and procurement processes, and the capacity to financially administer resources and exercise the necessary controls. Nonetheless, given the importance of bidding procedures and the need for them to be executed on schedule and in line with Bank procedures, ongoing training will be provided to CONAVI staff on the conduct of procurement processes using Bank procedures.
- 2.11 **Execution risks.** In technical terms, the works are not excessively difficult and there is a market (national, regional, and international) of construction companies qualified for the kind of works to be financed. With regard to technical and operational sustainability, CONAVI has been placing priority on maintenance of the road network under its responsibility. In 2007 it invested an average of US\$15,000/kilometer, which is relatively high when compared with similar countries; this is primarily due, however, to the poor condition of the network

(paragraph 1.8). As the network is rehabilitated, maintenance costs will fall and CONAVI will be able to earmark more funds for rehabilitation. A component has also been included for strengthening road management and maintenance capacity. With regard to environmental concerns, the works will not generate major indirect impacts; direct impacts associated with the execution of works will be addressed appropriately in the works and supervision contracts.

- 2.12 **Economic feasibility.** The Highway Design and Maintenance Standards Model (HDM) was the main evaluation tool used for the investment components, and for ascertaining the main economic indicators (EIRR) of the representative sample of program projects. The economic internal rate of return (EIRR) ranges from 22% to 66%, and economic benefits will stem primarily from the reduction of two cost categories: (i) vehicle operation costs, which account for 43% of total benefits; and (ii) travel time of automobiles, buses, and freight vehicles, which accounts for 57% of the benefits.
- 2.13 **Maintenance arrangement and sustainability of investments:** CONAVI is responsible for maintenance of the RVN, and has been executing these works through maintenance contracts with private companies. The program will enable CONAVI to use new ideas and tools for managing and conserving the RVN, prevent the premature deterioration of the stock of roads and, at the same time, provide suitable services to users at a lower cost than at present. The proposed pilot program will build on the experience gained and the lessons learned from using the maintenance standards model, which ensures conservation of the RVN and its sustainability over time.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 The MOPT, as the sector's regulatory and planning agency, will be the executing agency for the CCLIP. The MOPT is considered eligible as the CCLIP's executing unit because it meets the established requirements, inasmuch as: (i) for the last five years, it has executed a similar program (MOPT/GTZ participatory road project) effectively; moreover, through CONAVI, the MOPT has been executing annual RVN budgets on the order of US\$80 million effectively; (ii) it has complied with the contractual clauses of loans and has achieved or expects to achieve the expected objectives; (iii) the ex post evaluations show that the projects were well selected, executed satisfactorily, and adequately operated and maintained; and (iv) the MOPT has executed or coordinated the execution of all these programs and has had a satisfactory track record.
- 3.2 The MOPT will implement the first program through CONAVI, which has its own resource management capacity; its budget funds, which in principle are a part of the State's unified account, can be administered through transfers to trust accounts in the banking system. CONAVI is able to have budget surpluses that do not revert to the Treasury at the end of each fiscal year, giving budget management a multiyear

- character. The accounting records are organized for tracking of contracts, making it possible to identify projects, contracts, activities, and expense categories effectively. The contracting procedures for projects are carried out by the Engineering, Works, or Conservation Divisions, which performed 240 in 2007. In other words, CONAVI has sufficient operational capacity and experience in applying national procedures and those used by other sources of external financing (CABEI).
- 3.3 All the program works will be executed by private contracting firms. Consulting firms, contracted by CONAVI pursuant to Bank procedures, will be responsible for the technical and environmental supervision of the works, and for the execution of the program's studies and technical support services. CONAVI will administer the program's contracts and for oversee the supervision services provided by the firms.
 - 3.4 The technical studies conducted by CONAVI were used to verify the technical road rehabilitation standards, the activities and costs associated with these standards, and the social and environmental protection measures that need to be adopted. Economic feasibility analyses, socioenvironmental studies, and final engineering designs were carried out for the roads, and are representative of the type of works to be executed under the program. This sample, supplemented by the projects to be contracted shortly under technical cooperation operation CR-T1037, which includes economic feasibility studies, environmental studies, and preparation of final engineering designs for roads and bridges, will ensure that a suitable number of projects will be executed during year one of the program.
 - 3.5 CONAVI's main duties include: (i) planning, programming, administration, execution, and supervision of bidding processes; (ii) execution under contract of the works, supplies, and services required for the conservation and construction of the entire national road network; (iii) formulation of terms of reference for the contracts to construct and supervise works, and for engineering studies; (iv) inspection of projects and works, and supervision of goods and services procurement; (v) environmental oversight of works and environmental monitoring of the program; (vi) review of the final engineering studies for the sections to be worked on; and (vii) drafting of periodic and specific reports on the physical and financial progress of the program.
 - 3.6 CONAVI's accounting system includes government accounting performed as an integral part of budget execution under the SIGAF; this system handles information grouped by budget line item. In addition, CONAVI has its own contract-based accounting system that it uses for its own purposes. This second system is sufficiently flexible to effectively identify projects, contracts, activities, and cost categories as required under the program. Entries in both cases are timely and precede payment; there are sufficient controls to ensure accuracy; they both also require all the supporting documentation called for under good accounting practices.

- 3.7 **Revolving fund.** For managing the loan proceeds from the Bank loan, the MOPT, through CONAVI, will open and maintain, for the duration of the program, a “specific special account” separate from other sources. A revolving fund will be created, pursuant to Bank procedures, with up to 5% of the total loan amount, which will be deposited into the special account set up for that purpose; this fund will be used for making program disbursements. The MOPT, through CONAVI, will prepare disbursement requests for the borrower and submit semiannual reports to the Bank on the status of this fund, within 60 days after the close of each six-month calendar period.
- 3.8 **Procurement of goods and services.** Goods, services, and works will be procured and consulting services selected and contracted in accordance with the Bank policies set out in documents GN-2349-7 and GN-2350-7. The attached procurement plan details the contracting procedures to be used under the program.
- 3.9 **Disbursements.** Disbursement requests will be accompanied by the supporting documentation required by the Bank, in accordance with the ex ante review modality. However, if the Bank determines that there is proven institutional capacity in terms of financial management and control, it may decide that the operation will be supervised on the basis of ex post review.
- 3.10 **New operations.** The purpose of individual operations to be executed under the credit line will be to improve the infrastructure of the different subsectors under the responsibility of the Ministry of Public Works. This multisector CCLIP allows for operations to be submitted simultaneously by different executing agencies that have technical, financing, and execution capabilities. Should a given executing agency of the MOPT request a second operation, it will need to satisfy the eligibility criterion requiring 50% disbursement or 75% commitment of the funds of the previous operation, pursuant to the guidelines governing the CCLIP. Each individual loan operation will require its own analysis, and the specific proposal for operation development (POD) will set out the applicable criteria.
- 3.11 **Currency.** The Government of the Republic of Costa Rica has requested the use the Bank’s Local Currency Facility (LCF). The program would be implemented through resources from the Single Currency Facility in United States dollars from the Bank’s Ordinary Capital and will be subject to the Operational Framework for Lending in Local Currency (document GN-2365-6). In order to have the possibility of minimizing exchange risk, the Government of the Republic of Costa Rica would have the right, pursuant to the provisions of the LCF, to convert disbursements and outstanding balances to “Costa Rican colones.” The use of the LCF in this operation addresses the need expressed by the Government of Costa Rica to develop a public borrowing strategy with increasing local currency components, with resources from the Single Currency Facility of the Bank’s Ordinary Capital.
- B. Summary of arrangements for monitoring results**
- 3.12 The monitoring mechanism includes administration missions, semiannual progress reports, the annual work plan, and annual external audits. These activities are more

fully described in the document “Esquema de Monitoreo y Evaluación”
[Monitoring and Evaluation Mechanism]
(<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413896>).

COSTA RICA
FIRST ROAD INFRASTRUCTURE PROGRAM (CR-L1022)

Results framework / Indicators matrix

Objective	The goal of the first program is to contribute to increasing the country's competitiveness and the economic and social integration of its inhabitants by upgrading the transportation system through physical infrastructure improvements in the different subsectors under the responsibility of the MOPT. The purpose of the first program is to bring about sustainable improvements in the national road network's serviceability, principally by upgrading the conditions of the network and its bridges, on asphalt-paved and gravel roads covered by the program.		
Results indicator	Baseline	Target	Observations
Reduction in the number of impassable days			
- Reduce by 20% the number of days that the gravel roads covered by the program are impassable	20 days	16 days (20%)	By program end
Reduction in travel time			
- Reduce by 10% the average travel time for users, from point of origin to destination, on asphalt-paved roads covered by the program	25 minutes	22 minutes	By program end, average travel time will be less than at program start up, measured in terms of average sections on an average 20 km one-way trip.
- Reduce by 20% the average travel time of users, from point of origin to destination, on surfaced roads covered by the program	40 minutes	32 minutes	By program end, average travel time will be less than at program startup, measured in terms of average sections on an average 20 km one-way trip

	Baseline	2009	2010	2011	2012	2013	
Component. Public works							
Outputs							
- Road rehabilitation	km	100	100	100	100	100	
- Bridge improvement and/or reconstruction	bridges	10	10	10	10	10	
- Road maintenance	km		150	100	100	100	
End results							
- Serviceability of the road infrastructure improves.	5.5	4.6	4.0	3.3	2.7	2.0	Network covered by the program measured with the International Roughness Index (IRI)
Component. Support for management tools and capacity							
Outputs							
- Support for MOPT road planning	0	-	-		100%		
- Maintenance Administration System (SAM)	0	-	-			100%	
- Maintenance standards pilot operations	0	-		50%-	50%		
- Strengthening of CONAVI staff in the area of maintenance by results	0	-		50%-	50%		
- Review and update of network maintenance manuals	0	-			-	100%	
- Support for implementation of CONAVI's environmental and social management unit.		25%-	25%-	50%			
- In-house training for CONAVI staff on socioenvironmental matters		25%-	25%-	50%			
- Training in the use of the HDM-4 model		-	100%-	-			
- Dissemination and training seminar on maintenance by results.	0	-	-	-	100%		
End results							
- There is an improvement in the management of road conservation for the roads covered by the program.	Good: 0% Average: 50% Poor: 50%	20% 40% 40%	40% 30% 30%	60% 20% 20%	65% 20% 15%	75% 25% 0%	Road conservation conditions of network covered by the program

FIRST ROAD INFRASTRUCTURE PROGRAM (PIV) (CR-L1022)
PROCUREMENT PLAN

Description	Estimated cost (US\$)	Procurement method	Review	Source of funding and percentage		Prequalification (Yes/No)	Estimated dates	Status
				IDB %	Local %		Publication of the specific procurement notice	
1. Goods								
No goods are expected to be procured.								
2. Works								
1. Rehabilitation works, Route 4 Santa Cecilia Section-Intersection National Route 1 section (Northern Inter-American Highway)	9,000,000	ICB	ex ante	100%		No	January 2009	Pending
2. Improvement works, Birmanía-Santa Cecilia Highway. Route 4	4,100,000	ICB	ex ante	100%		No	August 2008	Pending
3. Road rehabilitation works. Playa Naranjo- Paquera	16,200,000	ICB	ex ante	100%		No	August 2008	Pending
4. Improvement works. Jicaral-Lepanto highway	3,400,000	ICB	ex ante	100%		No	August 2008	Pending
5. Improvement works. Gloria-La Loma highway	8,000,000	ICB	ex ante	100%		No	August 2008	Pending
6. Improvement works. Colonia G Brown-Pittier highway	2,500,000	NCB	ex ante	100%		No	January 2009	Pending
7. Improvement works. 10 bridges Inter-American Highway 1	10,000,000	ICB	ex ante	100%		No	January 2009	Pending
8. Improvement works. Critical points (national route 1, 2)	3,000,000	ICB	ex ante	100%		No	January 2009	Pending

Description	Estimated cost (US\$)	Procurement method	Review	Source of funding and percentage		Prequalification (Yes/No)	Estimated dates	Status
				IDB %	Local %		Publication of specific procurement notice	
3. Consulting Services								
1. Works supervision, Route 4	1,000,000	QCBS	ex ante	100%		No	December 2008	Pending
2. Works supervision– Playa Naranjo –Paquera highway	1,200,000	QCBS	ex ante	100%		No	January 2009	Pending
3. Works supervision Jicaral-Lepanto highway	250,000	QCBS	ex ante	100%		No	December 2008	Pending
4. Works supervision Gloria-La Loma highway	600,000	QCBS	ex ante	100%		No	July 2008	Pending
5. Works supervision Colonia G Brown-Pittier highway	180,000	QCBS	ex ante	100%		No	January 2009	Pending
6. Works supervision 10 bridges Inter-American Highway	800,000	QCBS	ex ante	100%		No	January 2009	Pending
7. Supervision critical points national routes 1 and 2	200,000	QCBS	ex ante	100%		No	January 2009	Pending
8. Maintenance Administration System (SAM)	500,000	QCBS	ex ante	100%		No	July 2009	Pending
9. Planning system	1,000,000	QCBS	ex ante	100%		No	October 2008	Pending
10.Technical studies San Ramón – Barranca	250,000	QCBS	ex ante	100%		No	January 2009	Pending

ICB: international competitive bidding; LIB: limited international bidding; NCB: national competitive bidding; Sh: shopping; DC: direct contracting; FA: force account; QCBS: quality- and cost-based selection; QBC: quality-based selection; FBS: selection under a fixed budget; LCS: least-cost selection; CQS: selection based on consultants' qualifications; SSS: single source selection.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE- ____/____

Costa Rica. ____/LC-CR. Cooperation Framework for the Financing of Investment
Projects under the Lending Instrument Conditional Credit Line for
Investment Projects Transportation Infrastructure Program

The Board of Executive Directors

RESOLVES:

1. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank to enter into such agreement or agreements as may be necessary with the Republic of Costa Rica to establish a cooperation framework for the financing of investment projects for the transportation infrastructure program, pursuant to the lending instrument Conditional Credit Line for Investment Projects and for up to the sum of US\$850,000,000, chargeable to the resources of the Single Currency Facility of the Bank's Ordinary Capital.

2. That the establishment and utilization of resources under the cooperation framework to the financing of investment projects shall be carried out in accordance with: (a) the objectives and regulations of the Conditional Credit Line for Investment Projects established by Resolution DE-58/03 of July 16, 2003 as amended by Resolution DE-10/07 of January 31, 2007; and (b) the specific provisions set forth in document GN-2246-4.

3. That the amounts authorized to finance individual operations chargeable to the cooperation framework for the financing of investment projects shall be granted as individual operations subject to the usual financial terms and conditions applicable to financing from the resources of the Single Currency Facility of the Bank's Ordinary Capital, in force at the time that each individual operation is approved. Such terms and conditions shall be specified in the executive summary of the corresponding loan proposal.

4. That the effectiveness of the agreement or agreements executed by the Bank with the Republic of Costa Rica to grant financing for each individual operation shall be subject to the effectiveness and validity of the cooperation agreement for the financing of investment projects.

(Adopted on ____ ____ ____)

LEG/SGO/CID/IDBDOS#1441831
CR-X1007

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/___

Costa Rica. Loan ____/OC-CR to the Republic of Costa Rica. First Road Infrastructure Program,
under the Cooperation Framework for the Financing of Investment Projects
Approved by Resolution DE-___/___, under the Lending Instrument
Conditional Credit Line for Investment Projects

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Costa Rica, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the first road infrastructure program, under the cooperation framework for the financing of investment projects approved by Resolution DE-___/___, under the lending instrument Conditional Credit Line for Investment Projects. Such financing will be for the amount of up to US\$300,000,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Executive Summary of the Loan Proposal.

(Adopted on ____)

LEG/SGO/CID/IDBDOCS#1441602
CR-LI022