

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**COSTA RICA**

**CANTONAL ROAD NETWORK PROGRAM**

**(CR-L1023)**

**LOAN PROPOSAL**

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ELECTRONIC REFERENCES	
<b>REQUIRED</b>	
1.	Procurement plan <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1576454">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1576454</a>
2.	Annual work plan <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1576479">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1576479</a>
3.	Monitoring and evaluation mechanism <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1576491">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1576491</a>
4.	Municipal Environmental and Social Management Framework <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1594163">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1594163</a> Environmental and Social Management Report for the Cantonal Road Network Program <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1594143">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1594143</a>
<b>OPTIONAL</b>	
1.	Report on the institutional capacity of the executing agency <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413893">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1413893</a>

## ABBREVIATIONS

CCLIP	Conditional Credit Line for Investment Projects
CONAVI	Consejo Nacional de Vialidad [National Roads Council]
DOP	División de Obras Públicas [Public Works Division]
ESMF-CCLIP	Environmental and Social Management Framework for the Credit Line
ESMF-M	Environmental and Social Management Framework for Municipalities
ESMP	Environmental and Social Management Plans
ESMR-PRVC	Environmental and Social Management Report for the Cantonal Road Network Program
FVN	Fondo Vial Nacional [National Road Fund]
JVC	Junta Vial Cantonal [Cantonal Road Board]
LCF	Local Currency Facility
MINAE	Ministry of the Environment and Energy
MOPT	Ministry of Public Works and Transportation
PCDV	Plan de Conservación y Desarrollo Vial [Road Maintenance and Development Plan]
PND	Plan Nacional de Desarrollo [National Development Plan]
POM	Program Operations Manual
PRVC	Programa Red Vial Cantonal [Cantonal Road Network Program]
RMM	Routine maintenance microenterprise
RVC	Red Vial Cantonal [Cantonal Road Network]
RVN	Red Vial Nacional [National Road Network]
SETENA	Secretaría Técnica Nacional Ambiental [National Technical Secretariat for Environment]
UGAS	Unidad de Gestión Ambiental y Social [Environmental and Social Management Unit]
UTGVM	Unidad Técnica de Gestión Vial Municipal [Municipal Road Management Technical Unit]

## PROJECT SUMMARY

### COSTA RICA CANTONAL ROAD NETWORK PROGRAM (CR-L1023)

Financial Terms and Conditions			
<b>Borrower:</b> Republic of Costa Rica <b>Executing agency:</b> Ministry of Public Works and Transportation (MOPT), through the Public Works Division (DOP)		<b>Amortization period:</b>	25 years
		<b>Grace period:</b>	5 years
		<b>Disbursement period:</b>	5 years
<b>Source</b>	<b>Program</b>	<b>Interest rate:</b>	Adjustable
IDB (Ordinary Capital)	US\$60 million	<b>Inspection and supervision fee:</b>	*
Local	US\$15 million	<b>Credit fee:</b>	*
Total	US\$75 million	<b>Currency:</b> U.S. dollars from the Single Currency Facility <b>Option of converting to Costa Rican colones:</b> Local Currency Facility (LCF) (document GN-2365-6)	
Project at a glance			
<b>Objectives and description:</b> <p>This is the second individual operation financed through the multisectoral Conditional Credit Line for Investment Projects (CCLIP) (CR-X1007) approved in August 2008. (paragraph 1.16).</p> <p>The objective is to improve the state of repair of the Cantonal Road Network (RVC) and its bridges, which would improve the quality of life and raise income levels of the canton’s inhabitants, thereby reducing poverty rates. The specific objectives are: (i) to increase the number of RVC roads in good repair through rehabilitation and periodic maintenance of roads in average or poor condition; (ii) to ensure the routine maintenance of all roads rehabilitated under the program; (iii) to deepen municipal participation in the financing of the rehabilitation and routine and periodic maintenance; and (iv) to develop and implement a sustainable RVC municipal management system, with central government technical, institutional, and financial support.</p>			
<b>Special contractual conditions:</b> (i) <b>precedent to the first disbursement:</b> Establishment of the program coordination unit (paragraph 3.2a); (ii) <b>During program execution:</b> Entry into force of the Program Operations Manual (paragraph 3.9), including the participation agreement.			
<b>Exceptions to Bank policies:</b> None.			
<b>Project qualifies as:</b>	SEQ [ ]	PTI [ ]	Sector [ ]      Geographic [ ]      Headcount [ ]
<b>Procurement:</b> Goods and works under the program will be procured in accordance with the Policies for the procurement of works and goods financed by the IDB (document GN-2349-7), of July 2006. Consulting services will be engaged in accordance with the Policies for the selection and contracting of consultants financed by the IDB (document GN-2350-7), of July 2006; and as established in the attached procurement plan.			
<b>Verified by ESR:</b> 15 August 2008 (ESR 32-08)			

\* 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 for investment projects. The government's National Development Plan (PND)<sup>1</sup> places priority on the restoration of such infrastructure and sets medium-term physical targets. This program seeks to rehabilitate and maintain cantonal roads and to support the institutional strengthening of municipalities and other public and private entities in the sector in order to improve the safety and serviceability conditions of cantonal road networks on a sustainable basis in the medium and long terms.
- 1.2 **The road network.** The national road network (RVN) is made up of primary, secondary, and tertiary roads.<sup>2</sup> The cantonal road network (RVC) 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 29,014 km (4,454 km paved and 24,560 km gravel or gravel and dirt). Road transport is the principal means of transporting people and goods in the country. A main objective is therefore to upgrade road infrastructure and improve road safety at the national and cantonal levels.
- 1.3 The RVN is administered by the Ministry of Public Works and Transportation (MOPT), through the National Roads Council (CONAVI). Under Article 15 of Executive Decree 27917, Restructuring the MOPT, RVC management is the responsibility of the country's 81 municipalities, with MOPT support. Article 15 provides that the Public Works Division (DOP) will focus on technical assistance and support to municipalities for network maintenance, while ensuring that they gradually assume their responsibilities as they gain the technical and financial capacity to do so.
- 1.4 The RVC comprises approximately 80% of the country's roads. Of these, 85% are gravel or dirt, of which 94% are currently in average or poor condition. Additionally, in the rainy season, most such roads are nearly impassable and cannot be traveled at average speeds above 10 km/hour.

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<sup>1</sup> 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.

<sup>2</sup> Primary roads: the network of main roads that function as corridors with relatively high volume 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 traffic to primary and secondary roads and are the main roads for traveling within a region or between important districts.

1.5 The table below shows total kilometers and condition of each type of road:

Surface	Length Km	CONDITION					
		GOOD	%	AVERAGE	%	POOR	%
Paved	4,454	1,336	30	2,645	59	473	11
Gravel and dirt	24,560	1,407	6	9,979	41	13,174	53
<b>Total</b>	<b>29,014</b>	<b>2,743</b>	<b>9</b>	<b>12,624</b>	<b>44</b>	<b>13,647</b>	<b>47</b>

1.6 The country's subsidiary roads are generally gravel and average six meters in width. In most cases, ditches and drainage pipes, where they exist, are in poor condition. Average daily traffic ranges from 50 to 500 vehicles, depending on the area and agricultural season. During harvests, approximately one third of vehicles are trucks of some type.

1.7 Many years without investment has led to the RVC's current state of disrepair, hindering access by the public and the productive sector, and increasing accident rates and costs, with an adverse effect on the country's competitiveness. Accordingly, to obtain reliable and sustainable sources of road financing, a financial reform was promoted that established a tax structure on fuels for the establishment and operation of a National Road Fund (FVN). Twenty-five percent of the 29% single fuel tax imposed will be distributed among the country's 81 municipalities for RVC maintenance.

1.8 To gain access to the Road Fund resources allocated to the RVC, each municipality must develop a Road Maintenance and Development Plan (PCDV), which must be consistent with the five-year plan and the annual municipal road investment work plan, prepared by the Cantonal Road Board (JVC).<sup>3</sup>

Financial situation of the Cantonal Road Fund (in US\$ millions)			
Year	Budgetary allocation <sup>1</sup>	Amount transferred <sup>2</sup>	Unused resources
2001	8.60	--	--
2002	18.92	10.34	8.24
2003	15.22	14.23	0.88
2004	25.80	24.59	1.21
2005	26.71	25.50	1.21
2006	19.38	18.77	0.61
2007	31.59	30.87	0.72

<sup>1</sup> Municipal allocations

<sup>2</sup> Amount effectively transferred to the municipalities

<sup>3</sup> Amounts not utilized by municipalities

1.9 To use the FVN, each municipality must establish a Municipal Road Management Technical Unit (UTGVM), which must be composed of at least a civil engineer, a technical assistant, and a social promoter. The main tasks assigned to the UTGVM include: (a) preparing and implementing road maintenance and development plans and programs consistent with the policies and guidelines issued by the Municipal Council; (b) promoting participatory road maintenance by

<sup>3</sup> These boards are public nonstate agencies designed by the Council—to whom they report—composed of representatives of the local government, the MOPT, and the community. They serve as consultative entities for the planning and evaluation of cantonal public road works and municipal roads.

strengthening local organization and its linkage with other similar entities to promote joint maintenance works on public roads and societal oversight of projects executed; (c) developing and updating the inventory of the canton's street and road network; (d) promoting and facilitating education on road maintenance and safety in public and private schools and other organizations of interest; (e) promoting gender equity in all road management activities; and (f) arranging for authorization to exploit sources of material, for which it must meet the corresponding requirements issued by the Ministry of the Environment and Energy (MINAE), and maintaining an inventory of possible sources of material within the canton.

- 1.10 In the context of road decentralization, the MOPT and the municipalities are entering into cooperation agreements ([link](#)), under which officials have received technical training, temporary transfers of equipment have been made, and works have been jointly executed, aimed at strengthening municipal human resources and technical capacities. Program implementation activities will be transferred gradually to the municipalities as they gain the required institutional and technical capacities to assume this responsibility, and the MOPT will continue as program executing agency and will strengthen its function as sector lead agency.
- 1.11 **Country strategy.** The Costa Rican government is seeking to expand and upgrade basic rural infrastructure with actions to reduce transportation costs and improve accessibility and safety, thus boosting competitiveness. The PND establishes the priority to be given to maintenance, rehabilitation, construction, and upgrades of the RVC to boost competitiveness and to serve as a conduit for the expansion and sustainability of the country's tourism sector. These together promote the socioeconomic and cultural development of rural areas, thus improving quality of life and raising income levels among its inhabitants, with a direct impact on poverty index reduction.
- 1.12 The MOPT's strategy for the RVC is to contribute to maintaining the cantonal road network by supporting the municipalities in developing their planning and management capacities so that they can fully assume their responsibilities in this area, in accordance with the decentralization policy. To that end, in recent years, the MOPT has been supporting municipalities in RVC administration, with German government resources, by rehabilitating and maintaining over 1,100 km of subsidiary roads. It also supports municipalities through national budget allocations to the DOP, which are incorporated through joint execution of projects and technical assistance. MOPT evaluations show a high level of sustainability of rehabilitated road maintenance activities, based on the incorporation of appropriate technical solutions to upgrade drainage systems.
- 1.13 **The Bank's strategy.** The program is consistent with the Bank's 2006-2010 country strategy with Costa Rica,<sup>4</sup> the general objective of which is to deepen economic growth and social progress. The Bank will pursue this general objective through activities in the following areas: (a) strengthening the macroeconomic and

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<sup>4</sup> IDB Country Strategy with Costa Rica (2006-2010). CP-3267-1 (December 2006).



public expenditure management framework; (b) deepening the country's growth and international positioning model; 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) boosting competitiveness and supporting the creation of supply chains; (iii) narrowing regional development gaps; and (iv) enhancing environmental management capacity.

- 1.14 The proposed program is consistent with the Bank's country strategy with Costa Rica in that it will: (i) contribute to the rehabilitation and expansion of the transportation system that facilitates and ensures the transport of goods and products from and to the centers of consumption, production, and export; (ii) improve the physical and economic integration of traditionally disadvantaged rural sectors, contributing to poverty reduction efforts and facilitating better coverage and efficiency of social services; and (iii) contribute to municipal government modernization.
- 1.15 **Rationale for Bank involvement.** There is a gap in road infrastructure (paragraph 1.5) between the supply of and demand for RVC maintenance under the municipalities' responsibility. This program, with approximately 2000 km of physical coverage, equivalent to 7% of the RVC, contributes to the network's recovery process in accordance with the objectives and policies of both the PND<sup>5</sup> and the Bank's strategy. Rural road infrastructure requires: (i) upgrading the serviceability of the cantonal road network; (ii) developing interconnection among road transport networks; (iii) making such networks' rehabilitation, maintenance, and operation sustainable in the medium and long term; (iv) boosting the technical and institutional capacity of local governments and monitoring their road administration; and (v) supporting road maintenance financing capacity at the municipal level.
- 1.16 The program addresses a need to provide rural communities with transportation infrastructure and services that ensure continuous access to social and government services, economic and commercial services, and job and income generation opportunities by providing rural areas with roads with technical standards appropriate to the needs of rural demand that, with adequate maintenance, will remain serviceable at all times.

## **B. Objective, components, and cost**

- 1.17 On 6 August 2008, the Bank approved a Conditional Credit Line for Investment Projects (CCLIP) for up to US\$850 million to help boost the country's competitiveness and the population's economic and social integration by upgrading transportation infrastructure. This program is consistent with the objectives of the

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

CCLIP (CR-X1007). It is the second individual operation financed through the line and the first for the RVC for the sustainable improvement of its serviceability, mainly by upgrading the conditions of the network and its bridges.

- 1.18 The specific objectives are: (i) to increase the number of RVC roads in good repair through rehabilitation and periodic maintenance of roads in average or poor condition; (ii) to ensure routine maintenance of all roads rehabilitated under the program; (iii) to deepen municipal participation in the financing of the routine and periodic maintenance; and (iv) to develop and implement a sustainable RVC municipal management system, with central government technical, institutional, and financial support. To develop new procedures, the program includes a pilot plan to create maintenance microenterprises with area residents.
- 1.19 The Programa Red Vial Cantonal [Cantonal Road Network Program] (PRVC) is conceived as a multiyear program, owing in part to the involvement of communities and local authorities in the process of identifying and selecting works, which makes impossible to identify them a priori, and in part to the simplicity and low cost of the works and, therefore, their large number. Strict project eligibility and evaluation criteria will ensure the fulfillment of the program's objectives. The program proposed for the RVC will rehabilitate and maintain the network; doing so in rural and relatively remote areas will facilitate agricultural development and the integration of such areas with markets, while promoting agroindustry and tourism, among other productive activities. Providing communities with better physical access will enable more intensive use and more efficient delivery of social services. By addressing practical municipal management matters, it will promote local government modernization and support political decentralization. For greater impact, the PRVC will include the rehabilitation of approximately 2,000 km given priority in the PCDVs, through periodic and routine maintenance and rehabilitation works on roads and bridges located along them. This figure accounts for approximately 7% of the RVC. As counterpart, the municipalities will be responsible for partial financing of rehabilitation works and the total cost of routine RVC maintenance.
- 1.20 Following is a description of the program's components:
  - 1. Component 1: Engineering and administration**
- 1.21 Administration: includes the expenses of the program coordination unit. Engineering studies and designs: includes expenditures associated with technical studies (engineering, environmental, social, and economic designs) for rehabilitation projects on cantonal roads and bridges and program works preparation. Supervision: will finance the program works supervision contracts. Financial audits: the cost of independent financial audits will be covered under this component.

## **2. Component 2: Support for management tools and capacity**

- 1.22 The objective of this component is to: (i) boost the cantonal transportation infrastructure management capacity of the MOPT and the municipalities and their UTGVMs to develop and implement road management systems; financing mechanisms; provide training on the socioenvironmental aspects of road projects; review and update technical and environmental manuals and handbooks; and provide computer equipment; (ii) provide technical assistance to municipalities on planning, procurement of a GPS for the road inventories survey, technical and financial administration of the cantonal road network, training workshops, institutional organization, computer procurement, etc.; (iii) update the technical aspects applied, especially those related to monitoring the condition of the rehabilitated network and systems applicable to road planning; and (iv) procure the required equipment for the program coordination unit (paragraph 3.2), essentially vehicles, office equipment, computers, etc., for its effective operation.

## **3. Component 3: Direct costs**

- 1.23 The program includes the rehabilitation and periodic maintenance of approximately 2,000 km of gravel and dirt roads of the RVC; road safety activities; and routine maintenance. The activities are described below:
- 1.24 *Road rehabilitation and period maintenance*: The PRVC will rehabilitate 2,000 km of the existing rural cantonal road network in the participating municipalities.<sup>6</sup> The works aim at restoring physical accessibility, providing the roads with suitable operational and serviceability conditions for the light and low capacity vehicles serving the communities. The proposed works are simple and do not involve widening or alignment. In no case do they involve the construction of new roads. Rehabilitation will include paving, patching, regravelling, removal of landslips and landslides, small roadway stabilization and grading works, upgrading of drainage systems, sewer and ditch cleaning, and erosion control. *Bridge rehabilitation, improvement*: includes bridges located on the cantonal roads to be rehabilitated.
- 1.25 *Road maintenance*: This activity will begin immediately after road rehabilitation, with technical standards that ensure road stability and durability, incorporating road maintenance practices to guarantee that the design service life is fully achieved and employing appropriate socioenvironmental and public participatory practices. Under the program, all rehabilitated roads would be incorporated into a routine maintenance management system. This component, to be financed fully with

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<sup>6</sup> In this first operation for the RVC, the MOPT has identified 42 municipios. (<http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1672762>). Rehabilitation works are expected to be carried out in 24 of these. This initial selection may be expanded and/or modified with the agreement of the Bank should any of the selected municipios not wish to participate in the program and/or emergencies arise that require MOPT interventions and that are of particular interest for implementation of the program. In addition, the program may finance strategic inter-cantonal roads, even if they involve other cantons and with a limit of 15% of the program's targets. The methodology for project inclusion and execution will be included in the Operations Manual.

contributions from resources the municipalities receive from the Road Fund, includes maintenance of the roads to be rehabilitated under the program, which will be monitored to adjust the mechanisms designed.

- 1.26 *Maintenance pilot.* To enable practical low-cost routine maintenance procedures to be developed. The work will be carried out by routine maintenance microenterprises (RMMs), to be established and trained under the pilot. Under this component, maintenance costs, how the RMMs are to be constituted, and their composition, performance, and contracting systems will be analyzed.
- 1.27 **Cost.** The total cost of the program is US\$75 million, of which US\$60 million (80%) will be financed by the Bank. The remaining US\$15 million (20%) will be provided by the local counterpart. Counterpart resources for works will come from the resources allocated by the FVC to municipalities (US\$12 million) from the national budget for administration. Estimated program costs, by component, are shown in the table below, in thousands of U.S. dollars:

Investment category	IDB	Local contribution	TOTAL
<b>1 Engineering and administration</b>	<b>7,150</b>	<b>3,000</b>	<b>10,150</b>
Administration		3,000	3,000
Engineering studies and designs	2,400		2,400
Works supervision	4,500		4,500
Financial audit	250		250
<b>2. Support for management tools and capacity</b>	<b>7,850</b>		<b>7,850</b>
<b>3. Civil works</b>	<b>45,000</b>	<b>12,000*</b>	<b>57,000</b>
Road rehabilitation	44,250	9,000	53,250
Road maintenance	0	3,000	3,000
Pilot plan development	750		750
<b>4. Inspection and supervision fund</b>	<b>0</b>		<b>0</b>
<b>TOTAL</b>	<b>60,000</b>	<b>15,000</b>	<b>75,000</b>

\* Resources from contributions of the municipalities participating in the program.

## C. Results matrix and key indicators

- 1.28 The expected outcomes of the program are related to providing sustainable conditions for the transportation of people and goods. More specifically, the program aims to help improve existing physical accessibility and serviceability, resulting in greater use of and access to public and social services, reduced transportation costs, reduced travel time, and greater road reliability. All such benefits have been evaluated and quantified in other similar programs. The main beneficiary will be the rural population. The municipalities will be the direct beneficiaries of institutional strengthening, resulting in more effective road management.
- 1.29 The expected outcomes of this operation are: (i) continuous serviceability of roads rehabilitated under the program; (ii) reduced travel time; and (iii) higher volumes of

traffic. In the medium term, expected outcomes are an increased level of economic activity, diversification and expansion of production, and poverty reduction.

## **II. FINANCING STRUCTURE AND MAIN RISKS**

### **A. Financing instruments**

- 2.1 The Programa Red Vial Cantonal [Cantonal Road Network Program] (PRVC) will be executed as an investment loan with a five-year disbursement period.

### **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), the principal instrument of which 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 safeguards compliance policies, during preparation of the Cantonal Road Network Program for road rehabilitation and maintenance, the following documents were produced in coordination with the MOPT and its officers in charge of environmental and social management: (a) an environmental and social management framework for the Conditional Credit Line for Investment Projects (CCLIP) (ESMF-CCLIP), containing a general social and environmental management framework; (b) an environmental and social management framework for the municipalities (ESMF-M), which, based on the general framework, was adapted for application at the municipal level; and the corresponding environmental and social management report for the Cantonal Road Network Program (ESMF-PRVC).
- 2.4 The principal objective of the ESMF-M is to have a guide tool at the municipal level as a project supervision authority that ensures that the environmental and social variables are included throughout the "project cycle" of the works financed with program resources, in order to ensure their environmental and social sustainability and comply with both national environmental legislation and the Bank's environmental and social safeguard policies. The ESMF-M includes: (a) diagnostic assessment of the legal and institutional framework governing the implementation of the program; (b) environmental and social profile of the country in terms of relevant socioenvironmental aspects; (c) introduction of methodologies, tools, and instruments for the socioenvironmental evaluation of road projects; (d) 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 (e) draft plan for strengthening socioenvironmental management capacity at the municipal level.
- 2.5 The ESMF-PRVC is a document that 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; an analysis of the environmental and social management capacity of the municipalities; the socioenvironmental management strengthening plan; and concludes by indicating the program's socioenvironmental feasibility.
- 2.6 The rehabilitation and periodic maintenance works for the existing cantonal road network will be simple from an engineering standpoint, small- or medium-scale, do not involve paving, widening, or alignment, or by-pass construction, and in no case involve the construction of new roads or crossings in protected environmental areas or areas where indigenous peoples live. In that context, no negative environmental or social impact is expected that could jeopardize the natural environment or inhabitants of the area of direct or indirect influence where works will be carried out. The potential negative impacts will be small-scale, insignificant, localized, and concentrated in the works execution stage. The budget to mitigate possible environmental impacts resulting from road rehabilitation works will be included in the contracts' individual budgets. In view of the foregoing and in accordance with the Bank's Environment and Safeguards Compliance Policy (OP-703), the project team proposed a Category B classification for the PRVC.
- 2.7 During program preparation, terms of reference were drawn up for drafting the environmental commitment affidavits that are to be prepared, including Form D1, an instrument defined by SETENA for the corresponding environmental licensing or feasibility studies. Execution of works for program projects may not begin without the respective environmental feasibility study issued by SETENA.
- 2.8 The program has funds for strengthening municipal environmental and social management that are earmarked to support the establishment of Environmental Management Offices in those municipalities without this type of unit. It also has funds to finance management, training, and equipment-related activities in the municipalities, aimed at strengthening and boosting socioenvironmental management capacity. The program provides for the engagement of consulting services to ensure proper socioenvironmental supervision of works.

**C. Fiduciary risk**

- 2.9 No institutional or fiduciary problems are anticipated, given the executing agency's experience with similar programs. The MOPT, through the Public Works Division, executes large budgets and has experience executing works through contracts with the private sector. The MOPT will receive support from enterprises for supervising the works. Institution strengthening actions have been included to reinforce the MOPT's organizational structure and management capacity (paragraph 1.22). In

- addition, the institutional assessment of the MOPT showed good budget execution, adequate capacity to manage competitive bidding and procurement processes, and the capacity to financially administer resources and exercise the necessary controls.
- 2.10 **Execution risks.** Resources will be allocated under the program to strengthen the capacity of the municipal governments with which it will interact, options will be analyzed for overcoming current limitations, and timetables will be established to provide them with advisory services and training. Individual project sustainability is based on acceptance by local governments of the road management system and on community participation during road identification and prioritization. Environmental and technical risks will be minimized through the use of execution and supervision designs and procedures ensuring environmental protection, the durability and maintenance of rehabilitated roads, and training for works supervision and maintenance entities.
- 2.11 **Economic feasibility.** Prior to determination of the economic feasibility of a road, it must meet a series of eligibility requirements related to the participation criteria adopted by the program. When such commitments have been made, most of them during the program incorporation and preparation stage of the Plan de Conservación y Desarrollo Vial [Road Maintenance and Development Plan] (PCDV), an economic evaluation is made of the individual road under consideration.
- 2.12 Economic feasibility will be analyzed separately for two groups of roads, based on the levels of demand they face: (i) roads with traffic of over 100 vehicles/day will be subject to a formal economic evaluation study based on savings in vehicle operating costs. Such roads should have internal rates of return above 12%. To establish this level of return, the RED model, developed especially for low traffic roads, will be used; and (ii) cost-efficiency analysis will be used for roads below that threshold. The program will finance all roads with an investment per inhabitant benefited of US\$200 or less.<sup>7</sup> Under the program's technical rehabilitation standards, roads with an investment per inhabitant above that amount would not be automatically excluded. Improvements could be made at crucial points where traffic was impeded the most, provided the threshold figure was not exceeded.
- 2.13 **Maintenance system and sustainability of investments:** The experience of other countries has shown that routine maintenance is sufficient for roads to reach their expected service life and to provide stability to technical tasks carried out to rehabilitate roads. The program will promote this method, for which it will engage local contractors to perform routine maintenance. It will also develop a pilot routine maintenance program using routine maintenance microenterprises (RMMs) that will receive support in their instruction and training.

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<sup>7</sup> The average cost of rehabilitation is US\$25,000/km for roads with used by over 100 vehicles per day on average. These figures will be reflected in rehabilitation designs and in the resulting works contracts.

### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Summary of implementation arrangements

- 3.1 The Government of Costa Rica is the borrower for this operation. The executing agency will be the MOPT, through the Public Works Division (DOP). The DOP's functions include assisting and supporting the municipalities in maintaining their networks, while ensuring that they gradually assume their responsibilities as they gain the financial and technical capacity to perform this task. The Municipal Management Office, under the DOP, has the following functions: (a) performing diagnostic assessment of the administrative, financial, and technical resources of the municipality to determine its capacity for sustainable management of the cantonal network; (b) maintaining an updated database, and preparing and executing agreements for better use of available resources, identifying and incorporating local or regional entities with greatest potential to benefit the cantonal network; (c) developing the annual work plans and programs for cooperation with the municipal system; (d) promoting the institutional strengthening of the municipalities, creating conditions to further the development of the cantonal network; (e) developing and conducting training programs to promote decentralization and municipal self-sufficiency in connection with the cantonal network and direct participation by organized community sectors in the maintenance of its roads, providing them with required conceptual elements; and (f) updating and implementing the municipal transition plan.
- 3.2 The program will be implemented through a coordination unit at the section level in the DOP, as follows:
- a. The coordination unit, with support from the MOPT units involved, will be responsible for program management. This will involve coordinating and participating in: (i) program promotion with the municipalities and communities, and establishment and administration of agreements with them (*participation agreements*); (ii) establishment of investment programs and budget allocations; (iii) design and coordination of the institutional strengthening component, (iv) development of the Program Operations Manual (POM), which will set forth program execution guidelines, mechanisms, and procedures; (v) development and implementation of a program monitoring system, supervision and submission of reports on the execution of the projects for which it is responsible; (vi) preparation of program progress reports, processing of disbursement requests, and evaluation and dissemination of outcomes; and (vii) coordination with other government agencies. The coordination unit will be comprised of a technical team composed of least an engineer, a financial specialist, a procurement specialist, and a socioenvironmental specialist. Establishment of the unit will be a special condition precedent to the first disbursement.



- b. The MOPT's Purchasing Unit<sup>8</sup> will be responsible for conducting the administrative procurement processes financed under the Cantonal Road Network Program (PRVC) and will receive support through the assignment and hiring of procurement specialists. Municipalities demonstrating the capacity to manage the PRVC (that have, among others, a Municipal Road Management Technical Unit (UTGVM), an Environmental and Social Management Unit (UGAS), and a duly constituted administrative and financial structure in operation) may take responsibility for promoting and conducting the procurement processes as subexecuting agencies.
  - c. The municipalities, through their UTGVMS, will participate in the following activities, among others: (i) identifying subprojects and coordinating investment programs with the coordination unit; (ii) contracting for the activities called for in the projects; (iii) making a contribution to the cost of works for the rehabilitation and maintenance components; and (iv) supervising project execution and presenting information on potential difficulties in project execution.
- 3.3 The MOPT will enter into participation agreements (paragraph 3.2 a) with the municipalities for execution of the PRVC, which will set forth, among others, the following responsibilities: (i) procurement of works and goods in accordance with the procedures established in the POM; (ii) participation in the institutional strengthening program and commitment to implementing agreed action plans; (iii) cofinancing of rehabilitation works and financing of routine maintenance of works rehabilitated under the program; and (iv) budget allocation and release of funds for maintenance of roads rehabilitated under the program.
- 3.4 **Geographic coverage:** The PRVC will be active in all municipalities of the country to boost their management capacity and that of their UTGVM; provide training on rural road technical and financial planning and management; conduct training workshops, contribute to institutional organization, prepare road project technical and socioenvironmental guidelines; develop road inventories and provide computer equipment; and continually update technical aspects related to monitoring the condition of the rehabilitated network and the applicable systems.
- 3.5 **Criteria for eligibility of roads:** institutional, technical, environmental, social, and economic. Institutional criteria refer to the level of identification with a specific project of the communities included in its area of influence. In this regard, the program will only finance those roads given priority in the PCDV and where local authorities indicate their commitment to finance their maintenance. Technical and

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<sup>8</sup> The **Proveeduría** [Purchasing Unit] is a well-organized and effectively managed unit. It handles all MOPT procurement processes. In 2007, the unit processed 860 procurement requests, using different procurement methods and consolidating procurement where advisable. The unit is responsible for processing procurement in a cycle that begins with receipt of the duly authorized purchase order and ends with storage of goods received in storage facilities it administers. Works and consulting services are procured with the participation of the responsible executing unit (primarily, the Public Works Division), which handles technical aspects. The Purchasing Unit handles administrative aspects of procurement.

- environmental criteria refer to the construction characteristics of the proposed projects, the validity of their environmental protection measures, and their function within the canton's road network. Social criteria refer to the need to integrate the poorest areas into economic and social activities and contribute to poverty mitigation through job creation.
- 3.6 The program aims at activity deconcentration. Accordingly, operational functions such as procurement, supervision of studies and subsidiary road works, and supervision may be transferred to the municipalities (paragraph 3.2 b). Program works will be executed by private contractors. Technical and environmental supervision of works and execution of program technical support studies and services will be the responsibility of consulting firms and/or individual consultants, who will be engaged in accordance with Bank procedures.
  - 3.7 A detailed road survey will be commissioned for the preparation of engineering studies and designs on the sections of the cantonal network where the program will intervene, identifying the type of deterioration and its planimetric location, and will propose a solution and technical response. The technical response will become a basic design that takes into consideration soil type, state of the wearing course, drainage works, and erosion conditions. The survey will also estimate the number of works, to be used as reference in their tendering.
  - 3.8 The program also includes preparation of a rural road rehabilitation procedures document identifying the most common types of deterioration and systematizing solutions for rebuilding and restoring the rural road network. The MOPT will provide advisory support for the preparation of the road plans of the participating municipalities in order to select roads for the launch of consultation processes and to prepare the institutional and financial framework for negotiations with the local governments.
  - 3.9 To ensure consistency in program execution, the coordination unit will develop a Program Operations Manual (POM) clearly establishing the guidelines and procedures to be used, including: (i) rules and procedures for program implementation; (ii) the general institutional structure; (iii) disbursement, accounting, and procurement procedures, distribution of responsibilities, internal controls, etc.; and (iv) project identification, preparation, approval, and monitoring procedures, among others. The entry into force of this manual will be a special contractual condition precedent to the launch of procurement processes for the first works.
  - 3.10 The MOPT's accounting system includes government accounting performed as an integral part of budget execution under the SIGAF (information management system). This system handles information grouped by budget line item. In addition, the MOPT has other information systems that it uses for internal use enabling it to effectively identify projects, contracts, activities, and cost categories as required under the program.

- 3.11 **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.
- 3.12 **Currency.** The Government of the Republic of Costa Rica has requested the use of 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**

- 3.13 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].

<b>COSTA RICA</b> <b>CANTONAL ROAD NETWORK PROGRAM</b> <b>(CR-L1023)</b> <b>RESULTS MATRIX</b>			
<b>Project objective</b>	The objective of the program is sustainable improvement in the road network's serviceability, primarily by upgrading the state of repair of the network and its bridges, which will enhance the quality of life of and raise income levels among the canton's inhabitants, thus reducing poverty rates. The <b>purpose</b> is: To increase the physical access of the rural population to public, economic, and social services.		
<b>Results indicator</b>	<b>Baseline</b>	<b>Target</b>	
<b>Reduction in the number of days the roads are not serviceable</b>			
- Reduce by 20% the average number of days the roads are not serviceable	<b>100</b>	<b>80      20%</b>	By program end
<b>Reduction in travel time</b>			
- Reduce by 20% the average travel time for users on roads from point of origin to destination	<b>40 minutes</b>	<b>32 minutes      20%</b>	By program end, average travel time will be less than at project launch, measured in terms of average sections on an average 15 km one-way trip.
<b>Increased volume of traffic</b>			
- Increase by 20% the volume of general and commercial traffic	<b>100</b>	<b>120      20%</b>	At program launch, a sample of at least 10 road sections will be selected where traffic counts will be conducted three years after works have been completed.

	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Target
<b>Component. Civil works</b>							
<u>Outputs</u>							
- Rehabilitation of subsidiary roads (km)	0	100	400	500	500	500	2,000 km
- Road maintenance pilot				100	100	100	100 km
- Road maintenance			200	600	1,100	1,500	3,400 km
<b>Component. Engineering and administration</b>							
Engineering and economic studies completed and available for procurement of works	0	500	600	600	500		2,200 km
<b>Component. Support for management tools and capacity</b>							
<u>Outputs</u>							
- Participatory road investment plans developed	0	25	25				50
- Professionals of the Municipal Road Management Technical Units (UTGVMS) have received instruction and training on the program's technical, environmental, social, financial, and procurement aspects	0	25	25	-			50
- Environmental and social management units established and operating	0	4	6	6	6	2	24
- Review and update of road rehabilitation manuals to include socioenvironmental aspects	0	-	100	-	-	100%	
<u>Final outcomes</u>							
- Improved road maintenance management of the roads benefited by the program	Good: 0% Average: 50% Poor: 50%	50% 29% 16%	58% 27% 15%	61% 25% 14%	65% 22% 15%	75% 25% 0%	State of repair of the road network covered by the program.

**COSTA RICA**  
**CANTONAL ROAD NETWORK PROGRAM**  
**(CR-L1023)**

**PROCUREMENT PLAN**

Description	Estimated cost (US\$)	Procurement method	Review	Source of funding and percentage		Pre- qualification  (Yes/No)	Estimated dates	Status
				IDB %	Local %		Publication of the specific procurement notice	
1. Goods								
1. Computer equipment	40,000	Sh	ex ante	100%		No	March 09	Pending
2. GPS	20,000	Sh	ex ante	100%		No	March 09	Pending
2. Works								
1. Rehabilitation works Subsidiary roads, Municipio 1 (50Km)	1,250,000	NCB	ex ante	100%		No	July 09	Pending
2. Rehabilitation works Subsidiary roads, Municipio 2 (50Km)	1,250,000	NCB	ex ante	100%		No	July 09	Pending
3. Rehabilitation works Subsidiary roads, Municipio 3 (50Km)	1,250,000	NCB	ex ante	100%		No	July 09	Pending
4. Rehabilitation works Subsidiary roads, Municipio 4 (50Km)	1,250,000	NCB	ex ante	100%		No	July 09	Pending
5. Rehabilitation works Subsidiary roads, Municipio 5 (50Km)	1,250,000	NCB	ex ante	100%		No	July 09	Pending

Description	Estimated cost (US\$)	Procurement method	Review	Source of funding and percentage		Pre-qualification (Yes/No)	Estimated dates	Status
				IDB %	Local %		Publication of the specific procurement notice	
6. Rehabilitation works Subsidiary roads, Municipio 6 (50Km)	1,250,000	NCB	ex post	100%		No	November 09	Pending
7. Rehabilitation works Subsidiary roads, Municipio 7 (50Km)	1,250,000	NCB	ex post	100%		No	November 09	Pending
8. Rehabilitation works Subsidiary roads, Municipio 8 (50Km)	1,250,000	NCB	ex post	100%		No	November 09	Pending
9. Rehabilitation works Subsidiary roads, Municipio 9 (50Km)	1,250,000	NCB	ex post	100%		No	November 09	Pending
10. Rehabilitation works Subsidiary roads, Municipio 10 (50Km)	1,250,000	NCB	ex post	100%		No	November 09	Pending
<b>3. Consulting services</b>								
1. Maintenance system review and design, including technical standards and routine road maintenance manuals	30,000	CQS	ex post	100%		No	December 09	Pending
2. Review of specific technical standards for subsidiary road rehabilitation	30,000	CQS	ex ante	100%		No	January 09	Pending
3. Review and update of participatory road investment plans (5 plans)	50,000	CQS	ex post	100%		No	December 09	Pending

Description	Estimated cost (US\$)	Procurement method	Review	Source of funding and percentage		Pre- qualification (Yes/No)	Estimated dates	Status
				IDB %	Local %		Publication of the specific procurement notice	
4. Review and update of participatory road investment plans (5 plans)	50,000	CQS	ex post	100%		No	December 09	Pending
5. Review and update of participatory road investment plans (5 plans)	50,000	CQS	ex post	100%		No	January 10	Pending
6. Review and update of participatory road investment plans (5 plans)	50,000	CQS	ex post	100%		No	January 10	Pending
7. Review and update of participatory road investment plans (5 plans)	50,000	CQS	ex post	100%		No	June 10	Pending
8. Design of training workshops on engineering matters for the UTGVMs	30,000	CQS	ex ante	100%		No	March 09	Pending
9. Design of training workshops on socioenvironmental matters for the UTGVMs	30,000	CQS	ex ante	100%		No	March 09	Pending
10. Design of training workshops on administration for the UTGVMs	30,000	CQS	ex ante	100%		No	March 09	Pending
11. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex ante	100%		No	July 09	Pending
12. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex ante	100%		No	July 09	Pending



Description	Estimated cost (US\$)	Procurement method	Review	Source of funding and percentage		Pre-qualification (Yes/No)	Estimated dates	Status
				IDB %	Local %		Publication of the specific procurement notice	
13. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex ante	100%		No	July 09	Pending
14. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex ante	100%		No	July 09	Pending
15. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex ante	100%		No	July 09	Pending
16. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	December 09	Pending
17. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	December 09	Pending
18. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	December 09	Pending
19. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	December 09	Pending
20. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	June 10	Pending
21. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	June 10	Pending
22. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	June 10	Pending
23. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	June 10	Pending
24. Engineering designs 50 km of subsidiary roads	75,000	LCS	ex post	100%		No	June 10	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; QBS: 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. Loan \_\_\_/OC-CR to the Republic of Costa Rica  
Cantonal Road Network Program

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 a cantonal road network program. Such financing will be for the amount of up to US\$60,000,000, 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#1614072  
CR-L1023