



# Board of Executive Directors

## Short Procedure

Expires on 20 March 2018

PR-4567  
13 March 2018  
Original: Spanish  
**Public**  
**Simultaneous Disclosure**

**To:** The Executive Directors  
**From:** The Secretary  
**Subject:** Costa Rica. Proposal for an individual loan for the "Cantonal Road Network Program II"

**Inquiries to:** Mauricio Bayona (telephone Country Office in Costa Rica 506-2588-8733) or  
Luis Uechi (extension 3886)

**Remarks:** This is the third individual operation financed with resources from the Conditional Credit Line for Investment Projects (CCLIP) for the "Transportation Infrastructure Program (PIT)" (document PR-3280-2), approved pursuant Resolution DE-82/08.

The Executive Directors are requested to inform the Secretary, in writing, no later than **20 March 2018**, if they wish to interrupt this procedure. If no such communication is received by that date, the attached resolution will be considered adopted by the Board of Executive Directors, and a record to that effect will be made in the minutes of a forthcoming meeting.

**Reference:** GN-1838-1(7/94), DR-398-17(1/15), CS-3953-3(6/17), GN-2246-1(7/03), DE-58/03, GN-2246-4(12/06), DE-10/07, GN-2246-7(11/07), DE-164/07, GN-2246-9(9/16), DE-86/16, GN-2564-3(12/11), DE-225/11, PR-3280-2(7/08), DE-82/08, DE-83/08, PR-3368(12/08), DE-204/08



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**COSTA RICA**

**THIRD INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE  
FOR INVESTMENT PROJECTS (CCLIP)**

**(CR-X1007)**

**CANTONAL ROAD NETWORK PROGRAM II**

**(CR-L1065)**

**LOAN PROPOSAL**

This document was prepared by the project team consisting of Mauricio Bayona (TSP/CCR), Project Team Leader; Luis Uechi (INE/TSP), Alternate Project Team Leader; Agustina Cocha and Tania Alonso (INE/TSP); Sergio Deambrosi (TSP/CPN); Alfonso Salazar (TSP/CHP); Sofía Fallas (TSP/CCR); Milagros Aime and Heidi Fishpaw (VPS/ESG); Cristina Landázuri-Levey (LEG/SGO); Miguel Baruzze and Raúl Lozano (FMP/CCR); and Álvaro Borbón and Greivin Mora (CID/CCR).

This document is being released to the public and distributed to the Bank's Board of Executive Directors simultaneously. This document has not been approved by the Board. Should the Board approve the document with amendments, a revised version will be made available to the public, thus superseding and replacing the original version.

## CONTENTS

### PROGRAM SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING .....	1
A.	Background, problem addressed, and rationale .....	1
B.	Objectives, components, and cost .....	9
C.	Key results indicators .....	11
II.	FINANCING STRUCTURE AND MAIN RISKS .....	12
A.	Financing instruments .....	12
B.	Environmental and social risks .....	13
C.	Fiduciary risks .....	14
D.	Other risks .....	14
III.	IMPLEMENTATION AND MANAGEMENT PLAN .....	15
A.	Summary of implementation arrangements .....	15
B.	Summary of results monitoring arrangements .....	18

ANNEXES	
Annex I	Summary Development Effectiveness Matrix
Annex II	Results Matrix
Annex III	Fiduciary Agreements and Requirements

ELECTRONIC LINKS
<b>REQUIRED</b> <ol style="list-style-type: none"><li>1. <a href="#">Multiyear Execution Plan and Annual Work Plan</a></li><li>2. <a href="#">Monitoring and Evaluation Plan</a></li><li>3. <a href="#">Environmental and Social Management Report</a></li><li>4. <a href="#">Procurement Plan</a></li></ol>
<b>OPTIONAL</b> <ol style="list-style-type: none"><li>1. <a href="#">Evaluation of Program 2098/OC-CR – Lessons Learned</a></li><li>2. <a href="#">Representative Sample of Projects</a></li><li>3. <a href="#">Program Economic Analysis</a></li><li>4. <a href="#">Draft Program Operating Manual</a></li><li>5. <a href="#">Report on Road Maintenance Microenterprise Partners</a></li><li>6. <a href="#">National Development Plan</a></li><li>7. <a href="#">National Transport Plan</a></li><li>8. <a href="#">Gender Analysis</a></li><li>9. <a href="#">Climate-change Adaptation</a></li></ol>

## ABBREVIATIONS

BST	Bituminous surface treatment
CCLIP	Conditional Credit Line for Investment Projects
CGR	Office of the Comptroller General of the Republic
CRNP I	First Cantonal Road Network Program
CRNP II	Cantonal Road Network Program II
DCPMH	Dirección de Crédito Público, Ministerio de Hacienda [Office of Public Credit, Ministry of Finance]
EIRR	Economic internal rate of return
ESMF	Environmental and social management framework
GCI-WEF	World Economic Forum's Global Competitiveness Index
ICB	International public bidding
IRI	International Roughness Index
km	Kilometer
MEMR	Microempresa Asociativa de Mantenimiento Vial Rutinario [Routine Road Maintenance Microenterprise Partnership]
MOPT	Ministry of Public Works and Transportation
MRMTU	Municipal Road Management Technical Unit
RMDS plan	Road Maintenance, Development, and Safety Plan
PEU	Program Execution Unit
SIGAF	Sistema Integrado de Administración Financiera [Integrated Financial Management System]

**PROGRAM SUMMARY**  
**COSTA RICA**  
**THIRD INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE**  
**FOR INVESTMENT PROJECTS (CCLIP)**

(CR-X1007)

**CANTONAL ROAD NETWORK PROGRAM II**

(CR-L1065)

Financial Terms and Conditions				
<b>Borrower:</b> Republic of Costa Rica			Flexible Financing Facility <sup>(a)</sup>	
			<b>Amortization period:</b>	25 years
<b>Executing agency:</b> Ministry of Public Works and Transportation (MOPT)			<b>Disbursement period:</b>	5 years
			<b>Grace period:</b>	5.5 years <sup>(b)</sup>
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	<b>Interest rate:</b>	LIBOR-based
<b>IDB (Ordinary Capital):</b> <sup>(d)</sup>	144,036,000	94.7	<b>Credit fee:</b>	<sup>(c)</sup>
			<b>Inspection and supervision fee:</b>	<sup>(c)</sup>
<b>Local:</b>	8,000,000	5.3	<b>Weighted average life:</b>	15.25 years
<b>Total</b>	152,036,000	100	<b>Approval currency:</b>	U.S. dollar
Program at a Glance				
<p><b>Program objective/description:</b> The program's general objective is to contribute to productivity growth and poverty reduction in Costa Rica by facilitating closer integration between production and consumption areas and improving the population's access to public and social services. Its specific objective is to improve the quality of the Cantonal Road Network through: (i) road rehabilitation and maintenance works that include a climate change adaptation component, which will result in shorter travel times and lower operating costs; and (ii) strengthening of the institutions responsible for road network management.</p> <p>This program will be the third individual operation under CCLIP CR-X1007.</p>				
<p><b>Special contractual conditions precedent to the first disbursement of the loan:</b> The following are special contractual conditions precedent to the first disbursement of the loan: (a) the program Operating Manual will have entered into effect, including its environmental and social management framework (ESMF), under terms previously agreed upon with the Bank; (b) the PEU will have been formally established within the structure of the MOPT, and a ministerial resolution will have been issued formalizing the special procurement process; and, (c) at minimum, the following PEU staff will have been appointed: (i) a general manager; (ii) an administrative-financial specialist, a staff member responsible for procurement, a staff member responsible for the finance process, and a staff member responsible for legal support; (iii) a road infrastructure specialist, a staff member responsible for managing road projects, and staff member responsible for environmental and social management; and (iv) a coordination and participation specialist and a staff member responsible for institutional strengthening (paragraph 3.5).</p>				
<p><b>Special contractual conditions during execution:</b> See Annex B of the <a href="#">environmental and social management report</a>.</p>				
<b>Exceptions to Bank policies:</b> None				
Strategic Alignment				
<b>Challenges:</b> <sup>(e)</sup>	SI	<input checked="" type="checkbox"/>	PI	<input checked="" type="checkbox"/>
			EI	<input type="checkbox"/>
<b>Crosscutting themes:</b> <sup>(f)</sup>	GD	<input checked="" type="checkbox"/>	CC	<input checked="" type="checkbox"/>
			IC	<input checked="" type="checkbox"/>

<sup>(a)</sup> Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency and interest rate conversions. When reviewing such requests, the Bank will take operational and risk management considerations into account.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

<sup>(c)</sup> 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 policies.

<sup>(d)</sup> In accordance with document AB-2990, the Bank's disbursement of Ordinary Capital resources will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months, in all cases as of the date the loan is approved by the Board of Executive Directors. These limits may become inapplicable if the Bank's policy requirements regarding such limits are fulfilled, provided that the borrower has been notified in writing (paragraph 2.3).

<sup>(e)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(f)</sup> GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problem addressed, and rationale

- 1.1 **Socioeconomic framework.** Costa Rica maintained stable economic growth averaging 4.15% between 2000 and 2017<sup>1</sup> and above 2.5% in the latter year.<sup>2</sup> Nonetheless, poverty rates have persistently remained at around 20% over the last two decades, and inequality increased by nearly one Gini coefficient percentage point between 2010 and 2015.<sup>3</sup> Poverty rates trended upward between 2010 and 2014, peaking at 22.4%, before retreating to 20% by 2017. That same year, extreme poverty increased from 5.8% to 7.2%, before returning to its 2010 level (5.7%).<sup>4</sup>
- 1.2 Costa Rica has one of the densest road networks in Latin America and the Caribbean, with 76 kilometers (km) of roads per 100 square kilometers of land area. This is well above the regional average of 30 km per 100 km<sup>2</sup>, and in particular compared to other Central American countries.<sup>5</sup> Measuring more than 42,802 km (9,750 km paved and 33,050 km unpaved), the road network is divided into the National Road Network, consisting of primary, secondary, and tertiary roads and the Cantonal Road Network, consisting of 29,014 km—or 69% of the total road network—of subsidiary, rural access, and unclassified roads. The Cantonal Road Network is managed by the municipios.<sup>6</sup> This network provides access to farming and tourism areas and moves traffic to primary and secondary roads.
- 1.3 **Road network, road transport, and productivity.** According to the Global Competitiveness Index, Costa Rica's economy ranks 47th out of 137 economies.<sup>7</sup> Upon considering the infrastructure pillar's road quality subcomponent in isolation, its ranking drops to 123rd. Costa Rica's road quality score is the worst in the subregion comprising Central America and Panama, with a below-average index of 2.6 out of a maximum of 7.<sup>8</sup> Road transport is the chief means of moving people and goods in Costa Rica, accounting for over 99% of domestic travel<sup>9</sup> and about 19% of the total value of imports and exports in 2011.<sup>10</sup> Approximately 49% of its GDP is generated by sectors with ample logistics potential, including agriculture (6%), transport and storage (9%), and tourism and services.<sup>11</sup>
- 1.4 Aside from its density and distribution, the network's main problem is its poor condition. In fact, 91% of the Cantonal Road Network is currently in fair or poor condition.

---

<sup>1</sup> [World Bank](#).

<sup>2</sup> According to the Central Bank, the pace of economic activity in Costa Rica has weakened since June 2017.

<sup>3</sup> [Gini coefficient](#). World Bank.

<sup>4</sup> National Institute of Statistics and Census of Costa Rica.

<sup>5</sup> IDB. Transport sector technical note, 2015.

<sup>6</sup> [National Transport Plan of Costa Rica, 2011-2035](#)

<sup>7</sup> [The Global Competitiveness Report 2017-2018](#).

<sup>8</sup> [World Economic Forum](#) (2014/15).

<sup>9</sup> Freight Transport and Logistics Statistics Yearbook, IDB 2014-2024.

<sup>10</sup> IDB. National Cargo Logistics Plan 2013.

<sup>11</sup> *Análisis del desempeño logístico y su diagnóstico en Costa Rica. Transportation Infrastructure and Logistics*. 2013.

**Table 1. Cantonal Road Network – length and condition**

Road surface	Length (km)	Condition					
		Good	%	Fair	%	Poor	%
Paved	4,454	1,336	30	2,645	59	473	11
Gravel or 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>

Source: MOPT 2014.

- 1.5 According to the National Transport Plan,<sup>12</sup> many roads do not have a guarantee of year-round serviceability and are only passable in the dry season. During the rainy season, it is impossible to drive at average speeds over 10 kilometers per hour on rural roads.<sup>13</sup> In many cases, the limited capacity of drains and culverts (if any) and the condition of bridges result in flooding and major structural damage.
- 1.6 The condition of the road network limits agricultural production, resulting in product losses or deterioration and delaying goods from reaching the market, not to mention damage sustained by vehicles and productive machinery. As a result, the price of goods increases by between 30% and 100%, owing to the logistical impact.<sup>14</sup> The slowdown in this industry reflects the weaker performance of road transport and services related to trade in goods. The estimated cost of road freight transport is US\$0.12 per ton-kilometer, compared to the Central American average cost of just US\$0.074 per ton-kilometer, according to the IDB's road index.<sup>15</sup>
- 1.7 **Institutional considerations and sector financing.** The shortcomings in infrastructure quality are a reflection of insufficient investment over the last 20 years.<sup>16</sup> According to National Transport Plan data ([optional electronic link 7](#)), Costa Rica's annual investment in infrastructure averaged about 1.5% of GDP in the last decade, which is very low compared to the figure for Latin America and the Caribbean as a whole, which was 4.4% in 2006 and trending upward.<sup>17</sup>
- 1.8 The National Road Network is operated by the MOPT, through the National Roads Council (CONAVI), whereas the Cantonal Road Network is managed by the country's 81 municipios, with MOPT support.<sup>18</sup> The role of the MOPT's Public Works Division is to provide technical assistance and support to the municipios for the network's maintenance. To obtain reliable and sustainable sources of financing, a National Road Fund (FVN) was established, which originally allocated 7.25% of the revenue collected from the flat tax on fuels to the 81 municipios for maintaining the

<sup>12</sup> [National Transport Plan 2011-2035](#).

<sup>13</sup> Neighboring populations have difficulty accessing rural roads and public and social services.

<sup>14</sup> In Costa Rica, 80% of actors in the three largest export markets rate poor-quality roads as one of the main business constraints (Guasch, 2011).

<sup>15</sup> The *Freight Transport and Logistics Statistics Yearbook* (IDB 2014) considers four objective indicators: (i) road network density; (ii) percentage of paved road network relative to the total network; (iii) CO<sub>2</sub> emissions due to road transport activity; and (iv) average freight tariff.

<sup>16</sup> With a small investment relative to needs, PVRC-I solved connectivity problems considered critical for socioeconomic activities in the cantons and helped improve municipal road management capacities; this needs to be consolidated in CRNP-II.

<sup>17</sup> [National Transport Plan 2011-2035](#).

<sup>18</sup> Law 8,801 on the Transfer of Competencies from the Executive Branch to the Municipios and its implementing regulations (2010); MOPT Executive Decree 27,917; and Special Law 9,329 on the Transfer of Competencies, Full and Exclusive Management of the Cantonal Road Network (2015).

Cantonal Road Network. Law 9,329 raised the percentage of revenue collected for that purpose to 22.25%, which represents a very significant increase in funding transferred to each municipio, based on the length of the Cantonal Road Network under its jurisdiction, the Cantonal Social Development Index, and the fixed portion (which is the same for all cantons).<sup>19</sup>

- 1.9 To be eligible for these funds, each municipio must have a Road Maintenance, Development, and Safety Plan (RMDS plan), based on the five-year and annual operating plans for municipal road investments prepared by each Cantonal Road Council.<sup>20</sup>
- 1.10 The municipios must also establish a Municipal Road Management Technical Unit (MRMTU), to include at least one civil engineer, a technical assistant, and a social outreach officer. The MRMTU is responsible for: (i) preparing and executing road maintenance and development plans and programs; (ii) promoting participatory road maintenance; (iii) performing and updating network inventory; (iv) promoting and facilitating road maintenance and safety training in schools; (v) mainstreaming the gender perspective in all road management activities; and (vi) issuing operating permits and maintaining an inventory of material sources in the canton. Since the first Cantonal Road Network Program (PVRC-I), only 40 of the 81 municipios (45%) that established a MRMTU have a RMDS plan and use it to plan and manage their road network.
- 1.11 **Climate change adaptation.** Costa Rica ranks second among countries most exposed to multiple hazards, with 36.8% of its land area susceptible to three or more adverse natural phenomena. According to estimates, 77.9% of its population and 80.1% of its GDP are located in high-risk areas for natural disasters.<sup>21</sup> Most of the country's emergencies are associated with rainfall events.<sup>22</sup> The trend in recent years is average rainfall of 2,926 mm (2014);<sup>23</sup> but extreme weather events—i.e. a 29% increase or 24% decrease in total annual rainfall<sup>24</sup>—are occurring more frequently. Costa Rica is also located in a region of medium climate change vulnerability.<sup>25</sup> The scenarios projected by the Intergovernmental Panel on Climate Change (IPCC) point to an increase in precipitation in the southeastern part of the Caribbean and a steep decrease in precipitation (approximately 25%) in the Western North Pacific zone.<sup>26</sup> The International Road Federation projects that Costa Rica will

---

<sup>19</sup> Projected transfers amounted to ₡21 billion (US\$36.8 million) in 2016; ₡42 billion (US\$73.7 million) in 2017; and ₡63 billion (US\$110.5 million) in 2018.

<sup>20</sup> These are non-state public bodies, appointed by the National Roads Council, made up of representatives from local government, the MOPT, and the community.

<sup>21</sup> [National Risk Management Plan 2010-2015](#).

<sup>22</sup> World Bank (CNE, 2010).

<sup>23</sup> World Bank. [Average precipitation in depth](#).

<sup>24</sup> National Meteorological Institute, Regional Committee on Water Resources, "Climate, variability and climate change in Costa Rica", 2008.

<sup>25</sup> IDB. *Climate Change Projections in Latin America and the Caribbean*. 2016

<sup>26</sup> Intergovernmental Panel on Climate Change (2013). *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report*, Stocker, T.F. et al, Cambridge University Press.

have the greatest increase in precipitation in the Mesoamerican region;<sup>27</sup> and 80% of its road drainage facilities are likely to be overwhelmed by future water flows.

- 1.12 **Gender considerations.** Costa Rica has implemented many different policies to foster gender equality. In 2017, it ranked eighth among the countries of Latin America and the Caribbean in terms of progress in narrowing gender gaps.<sup>28</sup> Nonetheless, economic disparities persist: the rate of women's participation in the labor market (52.8%) is below that of men (82.7%), and even more pronounced in rural areas (34.9% compared to 77.2%),<sup>29</sup> where job opportunities are few and far between. Under the first Cantonal Road Network Program (CRNP I), the MOPT developed a Routine Road Maintenance Microenterprise Partnership (MEMR) pilot plan, which encourages women to participate as partners ([optional electronic link 8](#)). Similar experiences in Nicaragua, Paraguay, and Peru show that providing women with information during the microenterprise creation phase, and clearly stating that women will be hired, have proven successful.<sup>30</sup> This activity is aligned with the MOPT's MEMR development plan, since it prioritizes the inclusion of women in the selection of microenterprise members, offering them a new source of employment in rural areas (paragraph 1.19). The Bank promoted the establishment of the MEMRs, together with training in heavy equipment operation for a large number of women in each project. One lesson learned is that forging partnerships between construction companies and MEMRs is essential to ensuring that women trained in this area are hired on internships, enabling them to gain work experience or secure permanent jobs. Another lesson is the need for the political commitment of authorities, community leaders, and the municipalities.
- 1.13 **Road Safety.** The National Plan associated with the Decade of Action for Road Safety 2011-2020, published by the Road Safety Council, identifies transit routes and mobility as a core line of action. Despite the country's efforts to improve road safety, the number of traffic deaths rose from 332 in 2012 to 458 in 2017. Moreover, 32% of fatal traffic accidents occur on the Cantonal Road Network.<sup>31</sup>
- 1.14 **The Bank's road sector knowledge.** The Bank has supported Costa Rica's road sector by preparing and financing numerous projects. The first Transport Infrastructure Program (loans 3071/OC-CR, 3072/CH-CR) for Cantonal Road Network (CRN) rehabilitation is currently in execution. In 2008, a CCLIP (CR-X1007) for up to US\$850 million was approved to boost the country's competitiveness and further the population's economic and social integration by improving transport infrastructure. Under the CCLIP, the First Road Infrastructure Program (loan 2007/OC-CR), for US\$300 million in Cantonal Road Network logistics corridors (which were key to the country's competitiveness), and CRNP I (loan 2098/OC CR) for US\$60 million, to connect rural productive areas with these corridors, were satisfactorily implemented. The current program builds on the work of the latter

---

<sup>27</sup> Precipitation projections in terms of intensity and volume to 2040 foresee increases of more than 20% in rainfall intensity and additional rainfall volume of over 1,000 mm in almost the entire country.

<sup>28</sup> *The Global Gender Gap Report 2017*. [World Economic Forum](#).

<sup>29</sup> International Labour Organization (ILO) (2013). *Gender Equality and Decent Work*. Geneva; and ILO (2012). *Employment Situation in Latin America and the Caribbean 2012*.

<sup>30</sup> The [World Bank](#) developed a campaign on job opportunities in microenterprises, with women accounting for 29% of microenterprise partners.

<sup>31</sup> Over 500 accidents involving least one fatality each occur each year (Road Safety Council).

program, which refurbished 108 cantonal roads with 31 bridges<sup>32</sup> and strengthened the MRMTUs. Under CRNP II, work on critical mobility and road management problems in each canton will be completed, which would otherwise take several years to accomplish or remain unresolved, thereby undermining productivity, deepening poverty, and widening disparities between the country's urban and rural areas. The challenges addressed during the execution of the first Transit Infrastructure Program and CRNP I included: a lack of definition and detailed designs for the projects; delays in bidding processes and in payments to contractors; deficient organizational arrangements within the MOPT; and low execution capacity of small-scale contractors (see Table 2).

- 1.15 The Bank has successfully supported numerous rural road programs in Latin America and the Caribbean,<sup>33</sup> gaining valuable technical experiences in cost-effective road improvement engineering solutions, strengthening the technical and management capacity of subnational governments, and developing MEMR programs with a gender perspective. An analysis of the execution of operation 2098/OC-CR ([optional electronic link 1](#)) identified lessons learned that were then incorporated into the design of this operation. This makes it possible to improve Cantonal Road Network planning and enables the MOPT to more efficiently manage bidding processes and payments to contractors.

**Table 2. Summary of lessons learned**

Challenge	Main lesson learned	Actions to be considered in CRNP II
Cantonal Road Network planning	RMDSPs are essential for prioritizing investments aligned with local needs and for obtaining co-financing for the municipios.	Use RMDSPs to prioritize interventions.
	Budgeting for adequate road network maintenance is key to ensuring the network's useful life.	Include funding for road maintenance work by microenterprises. Ensure that the program has a demonstration effect on the benefits of road maintenance being done by the municipios.
Efficient project management	Delays in the preparation of road designs prevent the program from starting on time.	Prepare a representative sample of projects that have final designs and include funding for the design of the remaining projects; also move ahead with the identification of other projects for financing.
	Delays in bidding processes delay the start of works and program disbursements.	The design of the execution mechanism provides for a PEU, consisting of MOPT staff working full-time on CRNP II, supported by consultants contracted through the program, and includes a special procurement procedure that enables contractual processes to be carried out autonomously.

<sup>32</sup> Total of 108 roads measuring 432.3 km and 31 bridges measuring 416.7 meters (November 2017). In addition, staff from the country's 81 MRMTUs received road management training.

<sup>33</sup> Operations SP/SF-97-02-PR and 1810/OC-PE in Peru; and operations 2164/BL-PR and 3600/OC-PR in Paraguay.

Challenge	Main lesson learned	Actions to be considered in CRNP II
	Delays in payments to contractors and suppliers add to the works' financing costs.	Assign at least one MOPT official exclusively to payment approval processes, supported by consultants hired under the program.
	Delays in the completion of works attributable to small-scale contractors with limited financial and execution capacity lead to disputes and litigation.	Group works in bidding lots that are attractive to local contracting firms with financial and execution capacity and/or that promote partnerships with small-scale contracting companies.

- 1.16 **Additionality.** By participating in the program, the Bank and central government add value in the form of training for subnational governments to enhance planning, financing, and management of their cantonal road assets by introducing an impact assessment (paragraph 3.12). In turn, the impact assessment will result in more efficient use of resources.
- 1.17 **Identification of the problem and proposed interventions.** Despite the efforts made thus far, problems persist. These are associated with the poor condition of the Cantonal Road Network, owing to the lack of investment and inadequate institutional capacity at the subnational level (paragraphs 1.4, 1.5, and 1.7). Excessive increases in vehicle operating costs and longer travel times (paragraph 1.6) due particularly to the effects of climate change (paragraph 1.11) impact the movement of goods between production and consumption areas, thereby eroding the country's productivity. In addition, accident rates are rising (paragraph 1.13). Difficulties in accessing the Cantonal Road Network mainly affect rural areas and the most disadvantaged segments of the population.
- 1.18 An efficient transport and related services network is needed to reduce logistics costs and improve the competitiveness and diversification of the regional economy. It would also help reduce poverty by providing the population with easier access to social services and markets. The following actions are proposed to mitigate the impact of the problems identified (paragraph 1.17): (i) rehabilitation and maintenance of the Cantonal Road Network, with the aim of improving its accessibility and serviceability; and (ii) strengthening of the technical and institutional capacity of local governments to sustainably manage and plan their road assets.
- 1.19 The program addresses the need for providing climate change-resilient transport infrastructure—particularly to rural communities—, thereby facilitating permanent access to social, economic, commercial, and government services, as well as opportunities for employment and income generation ([optional electronic link 9](#)). It also promotes the women's participation in MEMRs through: (i) information campaigns in the targeted areas, focusing specifically on women; (ii) community information meetings on MEMRs for women; and (iii) recruitment processes that take into account women's unremunerated work experience ([optional electronic link 8](#)). It will also build institutional capacity on road safety issues (paragraph 1.28). Lastly, it will help municipios prepare themselves to efficiently execute the

responsibilities and resources transferred to them by the central government under current legislation.<sup>34</sup>

**Figure 1. Map of project locations by canton**<sup>35</sup>



**1.20 Evidence on the intervention's effectiveness.** International evidence shows that efficient transport infrastructure contributes to economic activity and empowers poverty reduction efforts. An impact assessment in Indonesia found that a 1% increase in road roughness reduces consumption per capita by 0.26% and incomes by 0.89%.<sup>36</sup> Another study in Bangladesh shows that improving rural roads reduces transport costs by 25% and increases production volumes by between 8% and 22%.<sup>37</sup> In addition, a study by Casaburi et al. concludes that road improvements

<sup>34</sup> [Law 8,801 \(2010\) and Law 9,329 \(2015\)](#).

<sup>35</sup> Location of the 61 projects of the representative sample plus an additional 52 identified and under preparation in Costa Rica's 81 cantons.

<sup>36</sup> Gertler et al (2014). *The Role of Road Quality Investments on Economic Activity and Welfare: Evidence from Indonesia's Highways*.

<sup>37</sup> Khandker, S. R., et al (2009). *The poverty impact of rural roads: evidence from Bangladesh. Economic Development and Cultural Change*.

- in Sierra Leone led to an 18% drop in cassava prices on local markets and a 7% increase in farmers' net income, owing to lower transport costs (59%).<sup>38</sup>
- 1.21 The impact assessment of the Decentralized Rural Transport Program in Peru (loan 1810/OC-PE) shows that the rehabilitation of subsidiary roads contributed to a 10% reduction in extreme poverty and a 7% drop in poverty due to unmet basic needs. In addition, rural road improvements improved the school attendance rate among adolescent boys and young girls (aged 6 to 11) by roughly 7%.<sup>39</sup> Lastly, a study in Bangladesh analyzed how upgrading infrastructure helps reduce vulnerability to flooding.<sup>40</sup> Moreover, failing to include natural disaster analysis from the infrastructure design stage can increase their cost by more than 3%.<sup>41</sup> On gender issues, a World Bank study<sup>42</sup> shows that rural women's participation in MEMRs in Peru and Nicaragua<sup>43</sup> not only enabled them to increase their monthly incomes but also acquire new skills, owing to the training provided (paragraph 1.12).
- 1.22 **The Costa Rican government's strategy.** The National Development Plan 2015-2018 ([optional electronic link 6](#)) prioritizes restoring cantonal road infrastructure and defines medium-term physical targets,<sup>44</sup> consolidating the expansion and improvement of rural infrastructure to reduce transport costs, improving accessibility and safety, and boosting productivity. With regard to sustainability, the priority is to reduce climate change vulnerability across the country.<sup>45</sup> This program seeks to continue the work begun with CRNP-I to improve safety and transitability conditions on the Cantonal Road Network and make them sustainable in the medium and long term. The MOPT has supported the rehabilitation and maintenance of over 1,100 km of cantonal roads thus far.

---

<sup>38</sup> Casaburi et al (2014). *Rural Roads and Intermediated Trade: Regression Discontinuity Evidence from Sierra Leone*.

<sup>39</sup> Valdivia, Martín (2009). *Contracting the Road to Development: Early Impacts of a Rural Roads Program*.

<sup>40</sup> This study identified benefits for the most disadvantaged population groups, establishing a positive correlation between exposure to flood risk and family income. Brouwer, R., Akter et al (2007). *Socioeconomic Vulnerability and Adaptation to Environmental Risk: A Case Study of Climate Change and Flooding in Bangladesh*.

<sup>41</sup> In Latin America and the Caribbean, the average cost since 1970 is roughly 0.65% of GDP per year, while in the Caribbean region, the figure rises to 3.5% ([Economic Commission for Latin America and the Caribbean, 2010](#)).

<sup>42</sup> World Bank. *Caminos hacia el aumento de la capacidad de acción y decisión de las mujeres: Proyecto de transporte rural descentralizado*.

<sup>43</sup> In Peru and Nicaragua, community meetings were held to provide information on the available pool of female labor and recruitment of women. During these events, interest was shown in contracting women as microenterprise partners, thereby encouraging them to apply to the jobs. When the beneficiaries were selected, priority was given to unemployed lower-income individuals. World Bank (2014). *Reporte Final del Programa de Transporte Descentralizado del Perú*; and World Bank (2014). *Reporte Final Caminos Rurales de Nicaragua IV*.

<sup>44</sup> The National Development Plan acknowledges the inadequate condition of the road network at present and prioritizes its recovery in the short term. It establishes to priority to be given to Cantonal Road Network maintenance, rehabilitation, construction, and upgrading in order to boost competitiveness; and it serves as a channel for the expansion and sustainability of the country's tourism sector, both of which help reduce poverty rates.

<sup>45</sup> United Nations Framework Convention on Climate Change and Costa Rica's Ministry of Environment and Energy as set out in the 2015 goals of the [Intended National Determined Contribution](#).

- 1.23 **The Bank's strategy with the country.** The program is consistent with the IDB Country Strategy with Costa Rica 2015-2018 (document GN-2829-1), the general objective of which is to contribute to government actions to achieve higher, more inclusive, and sustainable growth and to speed up the pace of poverty reduction. It is aligned with the country strategy objective of improving the quality, efficiency, and sustainability of productive infrastructure. It is also consistent with the results matrix in terms of upgrading the quality of roads, including those of the Cantonal Road Network. The operation is included in the country programming document 2018 for Costa Rica.
- 1.24 The program is aligned with the Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy (document GN-2710-5), by supporting the construction and maintenance of an environmentally and socially sustainable infrastructure. It is also consistent with the Transport Sector Framework (document GN-2740-7) in the dimension of increasing and improving the transport system's capacity, quality, coverage, and connectivity.
- 1.25 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008); and is aligned with the following development challenges: (i) productivity and innovation, by providing quality infrastructure that guarantees reliable and permanent access to public services, and increasing the productivity of the economy, by making transport more efficient; and (ii) social inclusion and equality, by providing inclusive infrastructure and infrastructure services. The program is also aligned with: (i) climate change and environmental sustainability, by adapting drainage designs to flood forecasts for Costa Rica, which will increase the number of people with access to more climate change-resilient transport systems; (ii) gender equality and diversity, by seeking to improve women's economic opportunities through their participation in the MEMRs (paragraph 1.12); and (iii) institutional capacity and rule of law, through institutional strengthening for the municipios. According to the [multilateral development banks' joint methodology for tracking climate finance](#), it is estimated that 1.16% of the operation's resources will be invested in climate change-adaptation activities. These resources contribute to the IDB Group's goal of increasing the share of climate change-related project funding to 30% of all loan approvals by end-2020. The program will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6), through the indicators *Roads built or upgraded (km)* and *Women beneficiaries of economic empowerment initiatives (#)*.

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

- 1.26 The program's general objective is to contribute to productivity growth and poverty reduction in Costa Rica, by facilitating closer integration between production and consumption areas and improving the population's access to public and social services.
- 1.27 Its specific objective is to improve the quality of the Cantonal Road Network through: (i) road rehabilitation and maintenance works that include a climate change adaptation component, which will result in shorter travel times and lower operating costs; and (ii) strengthening of the institutions responsible for road network management. To achieve these objectives, the program is organized in the following components.

- 1.28 **Component 1. Support for management capabilities and instruments (US\$4.5 million).** This component includes activities to strengthen the MRMTU or its corresponding divisions tasked with road management, through consulting services in: (i) climate change-adapted management and planning of Cantonal Road Network assets; (ii) project cycle management (design, contracting, execution); (iii) socioenvironmental management of projects; and (iv) road safety. These activities entail: (i) formulating road maintenance plans in the municipios; (ii) producing guides and manuals for the socioenvironmental management of works; and (iii) designing the cantonal road asset management system. Road safety activities include: (i) training for the municipios' technical staff; (ii) campaigns targeting children and young people in schools located near the project sites;<sup>46</sup>(iii) raising awareness among vulnerable users such as pedestrians, cyclists, and motorcyclists; and (iv) conducting studies and audits to incorporate road safety measures into the projects.
- 1.29 **Component 2. Road and bridge rehabilitation and maintenance (US\$138.236 million).** This component includes rehabilitation works on cantonal roads and their bridges (paragraphs 1.32 and 1.33), ensuring adequate road safety standards, climate change adaptation and socioenvironmental management of works, the establishment and strengthening of MEMRs, promoting the gender perspective; routine maintenance of a group of roads through MEMRs; and the preparation of engineering designs for the projects and works supervision.
- 1.30 **Administration, management, and audits (US\$9.3 million).** This includes program administration and management costs, the costs associated with structuring the PEU, i.e. consulting services to provide ongoing external technical advisory support and individual consultants to support that effort, as needed (paragraph 3.2); along with monitoring, evaluations, and financial audits.
- 1.31 **Cost.** The program's total cost is US\$152,036,000, of which US\$144,036,000 will be financed by the Bank and US\$8 million will be provided as a local counterpart contribution for consulting services to provide ongoing technical support to the PEU. The program budget is presented in Table 3.

**Table 3. Budget by component**

Component	IDB	MOPT	Total <sup>(i)</sup>	%
<b>1. Support for management capabilities and instruments</b>	4,500,000	-	4,500,000	2.96
<b>2. Road and bridge rehabilitation and maintenance</b>	138,236,000	-	138,236,000	90.92
<b>Administration, management and audit</b>	1,300,000	8,000,000	9,300,000	6.12
<b>TOTAL</b>	<b>144,036,000</b>	<b>8,000,000</b>	<b>152,036,000</b>	<b>100.00</b>

(i) Excluding any additional contributions that municipalities may make as part of complementary works to the projects or maintenance activities.

- 1.32 **Representative sample and eligibility criteria.** The program has been structured under the multiple works modality and includes subsidiary road segments and bridges. The program's technical and economic evaluation was performed on a representative sample of 61 projects, accounting for roughly 30% of the total loan

<sup>46</sup> Complementary to the Road Safety Council's Safe Schools Strategy.

amount.<sup>47</sup> The sample consisted of 271.7 km of cantonal roads ([optional electronic link 2](#)) for which there are final technical designs, environmental and social assessments, and economic viability studies. These projects meet the following technical eligibility criteria: (i) classified as Cantonal Road Network roads and prioritized in the RMDSP; (ii) compliance with the requirements specified in the environmental and social management framework, which excludes category “A” projects ([required electronic link 3](#)); (iii) their technical standard of rehabilitation or improvement and of road safety are consistent with the characteristics of where the road is located and the level of demand; (iv) consistent with network logic, connect to a main or cantonal road segment in a good condition, facilitating access to services;<sup>48</sup> and (v) have an economic internal rate of return (EIRR) above 12% ([optional electronic link 3](#)); and (vi) the municipality in which the project will be implemented will have signed and maintain a participation agreement with the MOPT, and will comply with its obligations. The rest of the works to be financed by the program must also meet these eligibility criteria.

- 1.33 **Technical description of the proposed works.** According to the characteristics of the sample, the planned rehabilitation works (paragraph 1.29) will be carried out on segments of rural—and, on an exceptional basis, suburban—roads. The works will focus on improving the quality of the paved surface and drainage system, and include the requisite horizontal and vertical signage. Road surface improvement entails: (i) in most projects, road paving with bituminous surface treatment or a layer of asphalt concrete or hydraulic concrete; and (ii) in some cases, a new layer of better-quality gravel.
- 1.34 **Program beneficiaries.** The program will have a direct impact in terms of shorter travel times and lower costs, thereby enhancing the competitiveness of Costa Rica’s productive apparatus. Its beneficiaries will be road users,<sup>49</sup> freight forwarders, and other logistics chain actors. Additionally, making access to roads more reliable and predictable will benefit households in neighboring communities by affording them easier access to markets and public services,<sup>50</sup> thereby improving their quality of life.<sup>51</sup>

## C. Key results indicators

- 1.35 The program’s main expected impact will be felt in terms of productivity gains and poverty reduction. This will be monitored through improvements in Costa Rica’s score in the quality of roads subcomponent of the Global Competitiveness Index published by the World Economic Forum. Also anticipated are medium-term impacts on the level of economic activity, and productive diversification and expansion. The main expected outcomes of the operation, which will be measured against the indicators proposed in the results matrix (Annex II) are as follows: (i) improved

---

<sup>47</sup> Progress was made in identifying and designing another 52 projects, such that the value of projects ready for tendering in the first year will absorb about 54% of the loan.

<sup>48</sup> Network logic is achieved by integrating the cantonal roads into production chains, connecting them to transport logistics corridors, or improving the connectivity within, to, or from production hubs.

<sup>49</sup> Annual average daily traffic index for each project of the representative sample once the works are completed (between 110 and over 2,228 vehicles per day) ([optional electronic link 3](#)).

<sup>50</sup> Including hospitals, schools, notary services, public parks, sports fields, and banks.

<sup>51</sup> In 45 of the representative sample’s 61 projects for which there are data, an average of 2,713 direct and 10,885 indirect beneficiaries per project were identified in their areas of influence.

condition of the Cantonal Road Network; (ii) reduced vehicle operating costs; (iii) lower travel costs; (iv) reduced vulnerability of the road network to climate change; (v) strengthening of the municipios; and (vi) increased participation of women in the MEMRs. The outcome indicators will be measured directly or indirectly using the methodologies defined in the monitoring and evaluation plan ([required electronic link 2](#)).

- 1.36 **Economic viability.** An economic evaluation was performed on the proposed operation through a cost/benefit analysis of the representative sample's 61 projects. It compared costs and benefits, at economic prices, in situations with and without the road improvements. The benefits of each individual project were estimated by applying the analytical methodology generally used in road projects (i.e. consumer surplus). The HDM-4 model was used to calculate the return on each project considering the investment costs, including the costs of mitigating any direct socioenvironmental impacts; savings in general transport costs (vehicle operating costs and travel times) for normal, diverted, and generated traffic; and the annual maintenance costs identified with and without the project. The analysis reported EIRRs for each road segment of between 15.1% and 123.9%. Sensitivity analyses were also performed, considering a combination of a 10% increase in the investment cost and a simultaneous 10% reduction in the benefits. These found that each project maintains an EIRR above the discount rate used (12%), thereby verifying the robustness of the net benefits in less favorable scenarios ([optional electronic link 3](#)).

**Table 4. Results of cost/benefit and sensitivity analyses <sup>(i)</sup>**

Number of projects	Total length (km)	Total investment cost (US\$000)	Economic net present value (US\$000)	EIRR (%)	
				Baseline	Sensitivity analysis (+10% investment cost and -10% benefits)
61 (representative sample)	271.7	53,341	67,437	15.1 – 123.9	12.0 – 93.9

(i) Cost overruns were identified in 119 projects awarded in CRNP I. Over 75% of the projects in the representative sample had cost overruns of less than 10%; the likelihood of cost overruns of under 10% is 71%.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 The program is the third individual operation financed by the CCLIP (CR-X1007) under the multiple works modality (projects are physically similar, but independent from one another); and includes a representative sample that satisfies the projects' eligibility criteria (paragraph 1.32). The anticipated execution period is five years from the date the loan contract enters into effect. The works must be started within four years. The expected disbursement schedule is as follows:

**Table 5. Execution periods (US\$)**

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total	%
IDB	440,000	17,996,000	39,100,000	45,100,000	41,400,000	<b>144,036,000</b>	95
Counterpart	1,000,000	1,600,000	1,800,000	1,600,000	2,000,000	<b>8,000,000</b>	5
<b>Total</b>	<b>1,440,000</b>	<b>19,596,000</b>	<b>40,900,000</b>	<b>46,700,000</b>	<b>43,400,000</b>	<b>152,036,000</b>	<b>100</b>

2.2 The requirements for a new operation using CCLIP resources are met, as per the provisions of document GN-2246-9: (i) the operation falls under the sectors and components defined under the CCLIP (paragraph 1.14), since it involves road infrastructure projects; (ii) the operation is included in the country program (paragraph 1.23**Error! Reference source not found.**), contributes to productivity gains and poverty reduction (paragraphs 1.16 and 1.18), and promotes gender equity (paragraph 1.23); (iii) the MOPT will be the executing agency (paragraph 3.1), which served this same role in previous operations, is the governing body of the transport sector, and has demonstrated capacity to execute Bank-financed programs of similar size satisfactorily and in compliance with Bank policies; (iv) previous CCLIP projects (loans 2007/OC-CR and 2098/OC-CR) surpassed the commitment and disbursement minimums<sup>52</sup> specified by the policy; and (v) in both operations, the executing agency has satisfactorily fulfilled its contractual obligations, including the submission of operational reports and audited financial statements with favorable opinions on its fiduciary management.

2.3 Pursuant to the provisions of document AB-2990, the Bank's disbursement of the loan proceeds will be subject to the following thresholds: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months, all measured from the approval date of the loan operation by the Board of Executive Directors. These limits may become inapplicable in the event that the Bank's policy requirements regarding such limits are fulfilled, provided that the borrower has been notified in writing.

## **B. Environmental and social risks**

2.4 The program was classified as category "B" based on the requirements of the Bank's Environment and Safeguards Compliance Policy (Operational Policy OP-703). Because this is a multiple works loan, an environmental and social analysis was performed on the representative sample of projects, which includes an environmental and social management plan for each of the sample's 61 projects, as well as an environmental and social management manual for the project to be financed by the program going forward. This analysis identified the anticipated socioenvironmental impacts of the works.<sup>53</sup> In two of the representative sample's 61 projects, rights-of-way will need to be secured since they currently traverse

<sup>52</sup> Operation 2007/OC-CR (100% executed) and operation 2098/OC-CR (93.3% executed). Both operations have been evaluated as satisfactory by the Bank's Environmental and Social Safeguards Unit (VPS/ESG) in terms of their management performance and compliance with social and environmental obligations.

<sup>53</sup> Impacts on soil and water quality, water or wind erosion due to digging activities, temporary traffic disruptions, and impacts or risks caused by the presence of non-local workers in the projects' beneficiary communities.

private land, but do not entail the displacement of families or economic activities; in such cases, a procedure has been designed to verify the use of the affected properties, together with a strategy to reach agreements for the release of the work area. During program preparation, thorough consultations were held for the representative sample of projects, and significant ways of improving the final works designs were identified. Two projects of the representative sample will be implemented in or near indigenous territories, so the consultation processes were conducted following the guidelines of Operational Policy OP-765.<sup>54</sup> Several of the areas in which the projects will be implemented are susceptible to flooding, landslides, mudflows, and volcanic ash fall; accordingly, the program includes structures designed to prevent or reduce these kinds of hazards. To address the socioenvironmental aspects of the program, the staff of the PEU will include an environmental and social management specialist, and the MRMTUs will provide permanent staff for works inspection.

### **C. Fiduciary risks**

- 2.5 The main medium-rated financial management risks are: (i) an inopportune procedure for obtaining the release of budgetary funding, for which a mechanism enabling the executing agency to monitor and report to the Bank was defined, making it possible to obtain the necessary budget funding on a timely basis; and (ii) delays in the processing of payments, for which it was agreed to appoint an official from the MOPT's Finance Division to work for the program on a full-time basis, and to process program payments on different days than those of the MOPT. The main medium-rated procurement risks are: (i) delays caused by complaints and appeals lodged with the Office of the Comptroller General of the Republic (CGR) in the various phases of the process; (ii) delays in contracting processes in the MOPT procurement unit; and (iii) little interest or capacity among the construction firms that participate in the bidding processes. The following are proposed as mitigation measures: (i) require adequate profiles for the PEU team; (ii) provide training in the procedures specified in the program Operating Manual; (iii) group works packages to attract contractors with greater execution capacity; (iv) create a special procurement procedure; and (v) issue upgraded bidding documents (for national and international competitive bidding).

### **D. Other risks**

- 2.6 **Public management and governance.** Failure to apply the five-year RMDSPs was identified as a medium risk, which will be mitigated by providing direct support to local governments in preparing the RMDSPs, strengthening for local government technical staff, and dissemination of the RMDSP in the Municipal Council and efforts to have it approved. Also identified as a medium risk was the possibility of delays in the start of works due to the change of the national government in 2018. To mitigate this, a slow pace of works execution was scheduled in the first year of the loan operation. Nonetheless, works are expected to be executed in all cantons of the country, so there is strong support among parliamentarians and mayors; and

---

<sup>54</sup> In the case of the project to be implemented in the Talamanca Bribri Indigenous Territory, a specific, socioculturally appropriate consultation was held beforehand in that community's language at a site accessible to its residents.

progress was made on disseminating the program among representatives of the main political parties, who expressed their support for it.

- 2.7 **Development risk.** Damage to the image and credibility of the executing agency and program, in the eyes of public opinion or among the beneficiaries, was rated a medium risk. This will be mitigated by: (i) including as a requirement for eligibility that any projects to be financed under the loan must be included in the RMDSP; and (ii) the development of strategies for contracting firms with sufficient capacity to execute the works in the specified periods. There is also a medium risk of delays in the execution of works, which will be mitigated through improvements in the projects' designs and profiles, and through visits by potential bidders to the work sites.
- 2.8 **Sustainability of the investments.**<sup>55</sup> Road maintenance will be performed by the respective municipio once the works have been completed, applying technical standards that ensure the works' stability and durability. The program provides that the rehabilitated roads are to be incorporated into the municipal management system for routine and periodic maintenance. The participation agreements state the municipios' commitment to duly maintain the road segments targeted by the program (paragraph 3.6).
- 2.9 The program also provides for the establishment of at least 20 MEMRs, which will participate in the routine maintenance of networks in selected cantons.<sup>56</sup>

### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Summary of implementation arrangements

- 3.1 **Borrower and executing agency.** The borrower in this operation will be the Republic of Costa Rica. The MOPT will serve as executing agency through a PEU that reports to the Public Works Division,<sup>57</sup> with the participation of the country's local governments (paragraph 3.3). The PEU's main functions will entail technical, operational, socioenvironmental, and fiduciary management of the program. The PEU will be headed by a general manager and structured into three areas:<sup>58</sup> (i) an administrative-financial area, responsible for three processes: procurement, finance, and legal support; (ii) a roads area addressing two processes: road project management and environmental and social management; and (iii) a coordination and participation area addressing two processes: institutional strengthening and coordination with the municipalities.
- 3.2 The PEU will be staffed by MOPT employees appointed exclusively to fulfill specific program functions and will be supported, as necessary, by external consultants hired for that purpose with program resources and by an external technical advisory firm. This firm will be hired by the executing agency with the proceeds of the local

---

<sup>55</sup> Cost overruns are considered low-risk since there is sufficient historical data on the costs of works of this type, resulting from the contracts awarded in CRNP-I.

<sup>56</sup> To assess the impact of this indicator, eligible roads (50 km) will be selected at random to receive maintenance in each of these cantons with consolidated microenterprises.

<sup>57</sup> The new PEU will be established based on the PEU of CRNP-I, strengthening any functions that can be improved.

<sup>58</sup> Consulting firm hired by the MOPT using counterpart funding.

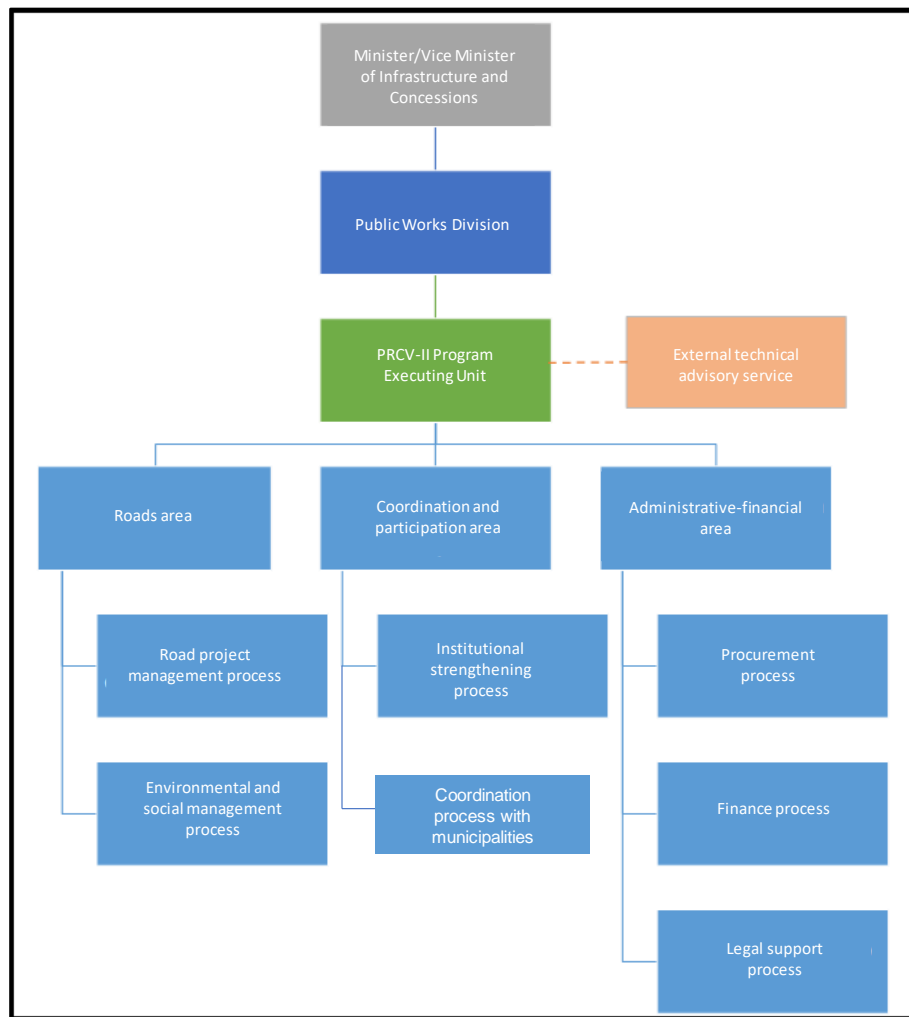
counterpart contribution. To support program execution, a special procurement procedure will be in place to improve the execution of contracting processes.

- 3.3 Local governments, through their MRMTUs or its corresponding divisions tasked with road management, will participate in the following activities with technical support from the PEU:<sup>59</sup> (i) identification of projects, their design, and securing the necessary works permits; (ii) project engineering, works management, socioenvironmental management, and reporting to the PEU on the status of projects; (iii) making additional contributions to the cost of rehabilitation works, as appropriate; (iv) routine maintenance of works and, in the event any have been formed, maintenance of MEMRs for a period of two years; and (v) participation in MRMTUs strengthening activities and the maintenance and proper use of the equipment delivered by the program.

---

<sup>59</sup> The PEU general manager will coordinate with the municipios.

Figure 2. PEU structure



- 3.4 **Program Operating Manual.** At minimum, this manual will contain detailed descriptions of: (i) the responsibilities of the participating agencies and PEU staff profiles; (ii) special administrative-financial processes for the program, which include process flowcharts with the special procurement procedure approved by ministerial resolution; (iii) works eligibility and selection criteria; and (iv) the process for selecting MEMRs. The program Operating Manual will include the ESMF as an annex. A preliminary version of the manual was prepared with the update to the PVRC I manual ([optional electronic link 4](#)).
- 3.5 **The following will be required as a special contractual condition precedent to the first disbursement of the loan:** (a) the program Operating Manual will have entered into effect, including its ESMF, under terms previously agreed upon with the Bank; (b) the PEU will have been formally established within the structure of the MOPT, and a ministerial resolution will have been issued formalizing the special procurement process; and, (c) at minimum, the following PEU staff will have been appointed: (i) a general manager; (ii) an

- administrative-financial specialist, a staff member responsible for procurement, a staff member responsible for the finance process, and a staff member responsible for legal support; (iii) a road infrastructure specialist, a staff member responsible for managing road projects, and staff member responsible for environmental and social management; and (iv) a coordination and participation specialist and a staff member responsible for institutional strengthening—all with a view to ensuring that the MOPT has the organization support it needs to effectively execute the program and minimize the risk of delays, in accordance with the lessons learned from the execution of CRNP 1 (paragraph 1.15).
- 3.6 **Participation agreements.** For the first stage of the program, the municipios will have signed the respective participation agreement with the MOPT. For this program, participation agreements will also have been signed establishing the responsibilities of the parties (paragraph 3.3), to include the municipios' commitment to address routine and periodic maintenance of the works ([optional electronic link 4](#)).
- 3.7 **Procurement.** The procurement of goods, works, and the selection of consulting services will abide by the Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank (document GN-2349-9) and with the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9); including the agreement for partial use of the Costa Rican Administrative Procurement System in Bank-financed projects.
- 3.8 Two instances of single-source selection contracting have been identified: (i) consulting services valued at approximately US\$383,500 for the review and validation of road surface georeferencing to be provided by Fundación de la Universidad de Costa Rica, based on its qualifications and experience of exceptional worth in terms of services required by the program, in accordance with paragraph 3.10 (d) of document GN-2350-9; and (ii) consulting services valued at approximately US\$676,500 for the preparation of road maintenance, development, and safety plans to be provided by Fundación de la Universidad Nacional based on the need for technical continuity and experience of exceptional worth in terms of services required by the program, in accordance with paragraph 3.10(a) and (d) of document GN-2350-9.
- 3.9 Additionally, for the MEMRs, microenterprises will be formed by local development agencies to promote the use of community labor for services, which is compatible with paragraph 3.17 of document GN-2349-9. This procedure is explained in the program Operating Manual.
- 3.10 The procurement plan ([required electronic link 4](#)) provides the details of the procurement processes to be implemented during execution.
- B. Summary of results monitoring arrangements**
- 3.11 **Monitoring.** The monitoring and evaluation plan ([required electronic link 2](#)) will track the operation's implementation relative to the indicators and objectives defined in the results matrix. The following instruments will be used for this purpose: (i) semiannual reports indicating progress made on results matrix indicators, monitoring physical and financial execution based on work, execution, and procurement and disbursement plans; (ii) financial statement audits; and (iii) the

project completion report. The Bank will supervise the program through ex ante and ex post reviews of procurement, inspection visits, and administrative missions. The PEU will maintain suitable systems for collecting periodic data on physical and financial progress.

- 3.12 **Evaluation.** An impact assessment will be performed with a view to closing the knowledge gap concerning the effectiveness of rehabilitation and maintenance actions on roads of the Cantonal Road Network. Regarding this gap, there is limited evidence in Central America with respect to the institutional strengthening strategies provided to the municipios (using indicators that measure changes in their efficient use of local road management resources) and the different types of maintenance contracts. In this regard, there is no solid evidence regarding their impact. Changes in specific indicators for the roads and cantons targeted by the program will be compared against those of a control group ([required electronic link 2](#)). This will be based on experimental methods or random assignment, thereby making it possible to generate the most rigorous counterfactual scenarios possible for an evaluation of this type. The loan proceeds will be used to finance a baseline survey, which will be used in the aforementioned evaluation once program implementation has been completed. An ex post economic cost/benefit evaluation, based on the model developed for the ex ante economic evaluation, will be conducted on a sample of projects during the final year of the disbursement period of the loan.

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Women beneficiaries of economic empowerment initiatives (#)* -Roads built or upgraded (km)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2829-1	Improve the quality, efficiency and sustainability of the productive infrastructure
Country Program Results Matrix	The operation is scheduled for CPD 2018 (CR-O0002)	The intervention is included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability	Evaluable	
3. Evidence-based Assessment & Solution	10.0	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	4.0	
3.3 Results Matrix Quality	3.0	
4. Ex ante Economic Analysis	10.0	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	3.0	
4.2 Identified and Quantified Benefits and Costs	3.0	
4.3 Reasonable Assumptions	1.0	
4.4 Sensitivity Analysis	2.0	
4.5 Consistency with results matrix	1.0	
5. Monitoring and Evaluation	10.0	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	7.5	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	B	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting.  Procurement: nformation System, parison, ontracting Individual Consultant, ational Public Bidding.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	

Note: (\*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

**Evaluability Assessment Note:** The purpose of this note is to provide an overall assessment of the project's evaluability based on the standards described in the Evaluability Guidelines, as well as to ensure that the Board understands why scores were or were not given to the project.

This is the third operation of a conditional credit line for investment loans (CCLIP). The loan is for US \$ 144.04 million, co-financing investments for US\$152.04 million. The general objective of the program is to contribute to the improvement of the productivity and reduction of poverty in Costa Rica, facilitating the integration of productive zones with areas of consumption and the connection of the population to public and social services. The specific objective is the improvement of the quality of the cantonal road network, through: (i) rehabilitation and maintenance interventions incorporating adaptations to climate change (CC), which will result in reductions in travel time and operating costs; and (ii) the strengthening of the institutions responsible for the management of the road network. Although the transportation of people and goods in the country is mostly by roads (99% of national trips and 19% of imports and exports), the quality of roads is the worst in the sub-region of Central America and Panama; 91% of the cantonal road network is in a regular or bad state. The national government has substantially increased recently the amount of resources that will be transferred to the municipalities for the maintenance of this network, which implies a need for institutional strengthening of the mechanisms for using these funds. The program will provide support to the network's management capabilities and tools and will support the rehabilitation and maintenance of roads and bridges, providing rural communities with a transport infrastructure resilient to CC. Additionally, it will promote the participation of women in road maintenance micro-enterprises and will help the municipalities prepare themselves to efficiently assume the execution of the responsibilities and resources transferred by the central government.

The ex-ante economic analysis of the intervention, performed on a representative sample, is appropriate, with reasonable and standard assumptions for this type of project, and with reasonable sensitivity analyzes. The net present value of the road segments in the representative sample is US\$67.4 million, with an average internal rate of return of 31.6% and from 15.1% to 123.9% for each segment studied.

The project proposes a comprehensive evaluation plan, which not only proposes an ex-post cost-benefit analysis, but also proposes impact evaluations focused on three areas: (i) the effectiveness of strengthening the municipalities so that they better manage their road networks; (ii) the impact of the rehabilitation of the roads; and (iii) the impact of adopting the maintenance methodology by microenterprises. These evaluations are well planned and will contribute to increasing our knowledge about the impact of this type of intervention.

## RESULTS MATRIX

<b>Program objective:</b>	<p>The program's general objective is to contribute to productivity growth and poverty reduction in Costa Rica by facilitating closer integration between production and consumption areas and improving the population's access to public and social services.</p> <p>Its specific objective is to improve the quality of the Cantonal Road Network through: (i) road rehabilitation and maintenance works that include a climate change adaptation component, which will result in shorter travel times and lower operating costs; and (ii) strengthening of the institutions responsible for road network management.</p>
---------------------------	--

## EXPECTED IMPACT

Indicator	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
<b>Impact 1: Improved productivity</b>											
Road quality, based on the World Economic Forum's Global Competitiveness Index (GCI-WEF): infrastructure pillar, transport infrastructure component, road quality subcomponent	Score	2.9	2015/2016	-	-	-	-	-	3.1 <sup>1</sup>	Document evidencing an improvement in the country's score on the road quality subcomponent of the GCI-WEF transport infrastructure component	<ul style="list-style-type: none"> <li>- Definition: score obtained on the road quality subcomponent of the transport infrastructure component of the GCI-WEF infrastructure pillar.</li> <li>- How measured: verification of the improved score.</li> <li>- Source: GCI-WEF.</li> </ul>

<sup>1</sup> The estimated impact of program financing for the cantonal road sector, together with central government transfers to the cantons, will be a 0.2-point improvement in the GCI-WEF road quality subcomponent.

## EXPECTED OUTCOMES

Indicator	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
<b>Outcome 1: Improvement in the condition of the Cantonal Road Network</b>											
Density of cantonal roads in good state of repair	Km of cantonal roads in good condition / 1,000 km <sup>2</sup> area	53.7	2017	-	-	-	-	65.6	65.6	MOPT Cantonal Road Network Cadaster	<ul style="list-style-type: none"> <li>- Definition: density of cantonal roads in good condition,<sup>2</sup> per surface area unit.</li> <li>- How measured: number of kilometers of roads in good condition per 1,000 km<sup>2</sup> of surface area (at the start of the program, 2,743 km, total: 51,100 km<sup>2</sup>).</li> <li>- Source: MOPT data (road cadaster).</li> </ul>
<b>Outcome 2: Lower vehicle operating costs</b>											
Vehicle operating costs on segments upgraded from gravel or dirt to bituminous surface treatment (BST)	US\$/km-vehicle	0.52	2016	-	-	-	-	-	0.37	Program consulting reports; this information is calculated annually on the basis of field measurements of the International Roughness Index (IRI) and calculations using the HDM-4 model.	<ul style="list-style-type: none"> <li>- Definition: average vehicle operating cost (or reduction in said cost) of vehicles traveling on rehabilitated segments upgraded from gravel or dirt to BST.</li> <li>- How measured: weighted average of vehicle fleet operating costs per km, obtained through a cost/benefit analysis, using the HDM-4 model, on the road segments targeted by the program. The vehicle fleet includes the types of vehicles that most often use the rehabilitated roads, i.e. trucks and automobiles.</li> <li>- Original source: representative sample of the ex ante economic evaluation (<a href="#">optional electronic link 3</a>).</li> <li>- Final source: ex post project evaluation report on the program's representative sample.</li> </ul>

<sup>2</sup> Functional Serviceability Index, prepared by the MOPT.

Indicator	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
<b>Outcome 3: Lower travel costs</b>											
Travel costs on road segments upgraded from gravel or dirt to BST	US\$/km-vehicle	0.31	2016	-	-	-	-	-	0.21	Program consulting reports; this information is calculated annually on the basis of IRI field measurements and calculations using the HDM-4 model.	<ul style="list-style-type: none"> <li>- Definition: average vehicle operating cost (or reduction in said cost) of vehicles traveling on rehabilitated segments that are upgraded from gravel or dirt to BST. This is an indirect measure of travel times.</li> <li>- How measured: weighted average of vehicle fleet operating costs per km, obtained through a cost/benefit analysis using the HDM-4 model, on the road segments targeted by the program.</li> <li>- Original source: representative sample of the ex ante economic evaluation (<a href="#">optional electronic link 3</a>). Final source: ex post program evaluation report.</li> </ul>
<b>Outcome 4: Reduction in road vulnerability to climate change</b>											
Roads temporarily or permanently closed due to vulnerability to weather events	%	Roads impacted by weather events	62	-	-	-	-	-	14	Impact reports on roads targeted by the Cantonal Roads Program II (PRVC II)	<ul style="list-style-type: none"> <li>- Definition: percentage of roads to be rehabilitated by the program (relative to an MOPT sample of 113 roads affected by Hurricane Nate in October 2017) that had been temporarily or permanently closed owing to weather events.</li> <li>- How measured: field inspections and reports from the Road Committee and local government.</li> <li>- Source: executing agency.</li> </ul>

Indicator	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
<b>Outcome 5: Institutional strengthening of the municipalities</b>											
Percentage of municipios that have prepared a road maintenance, development, and safety (RMDS) plan to manage their roads	%	49	2017	-	-	-	-	-	100	Semiannual program monitoring reports prepared by the MOPT	<ul style="list-style-type: none"> <li>- Definition: percentage of municipios that perform road works based on an RMDS plan.</li> <li>- How measured: verification that the project is included in the RMDS plan.</li> <li>- Source: municipios.</li> </ul>
<b>Outcome 6: Greater participation by women in road management microenterprises</b>											
Percentage of women participating in MEMRs established in the country	%	7	2015	-	-	-	-	20	20	Semiannual program monitoring reports prepared by the MOPT	<ul style="list-style-type: none"> <li>- Definition: percentage of women who partner in MEMRs.</li> <li>- Baseline value: measured in the four microenterprises existing in 2016, established under CRNP I.</li> <li>- Target: to be measured in all MEMRs in the program universe.</li> <li>- How measured: microenterprise development reports.</li> <li>- Source: executing agency reports.</li> </ul>

## OUTPUTS

Indicator	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
<b>Component 1: Support for management capabilities and instruments</b>											
1.1 Number of municipal road management staff trained	Staff member	1,000,000	0	0	30	78	78	57	243	Participation lists/certificates	The training covers program technical, environmental, social, financial, and procurement issues
1.2 Number of cantons with five-year road maintenance and development plans	Canton	1,720,000	0	0	40	0	0	41	81	Road plans	
1.2.1 Number of cantons with five-year RMDS plans prepared	Canton		40 (2017)	0	20	21	0	0	41	RMDS plans	
1.2.2 Number of cantons with cantonal road asset management plans prepared	Canton		0	0	40	0	20	21	81	Cantonal road asset management plans	
1.3 Road safety and socioenvironmental management manuals prepared	Document	180,000	0	0	4	0	0	0	4	Manuals	
1.4 Road asset management system implemented	System	600,000	0	0	0	1	0	0	1	Completion of services certificate	
1.4.1 Road management system designed and validated	Design		0	0	1	0	0	0	1	Design report	
1.4.2 Road management	System		0	0	0	1	0	0	1	Management reports	

Indicator	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
system implemented											
1.5 Cantons undertaking road safety actions	Number	1,000,000	0	0	20	30	31	0	81	Semiannual program status reports	Number of local governments undertaking road safety actions (e.g. training for local technicians and campaigns)
<b>Component 2: Road and bridge rehabilitation and maintenance</b>											
2.1 Cantonal roads rehabilitated	Kilometer	116,735,731	0	0	110	164	169	168	611	Final acceptance of works certificate	
2.2 Bridges built or rehabilitated	Meter	13,500,269	0	0	0	202	202	201	605	Final acceptance of works certificate	
2.2.1 Designs of rehabilitation works adapted to the effects of climate change	Meter			0	202	202	201	0	605	Project design documents and field checks	Project designs adapted to climate change by incorporating rainfall forecasts based on climate change estimates
2.3 Standards-based routine maintenance performed by microenterprises	Kilometer/year	8,000,000	0	0	0	110	274	333	717	Program management reports	This envisages two years of maintenance per km of road rehabilitated during the program execution cycle

## **FIDUCIARY AGREEMENTS AND REQUIREMENT**

**Country:** Costa Rica

**Project number:** CR-X1007 and CR-L1065

**Name:** Third Individual Operation under the Conditional Credit Line for Investment Projects (CCLIP) and Cantonal Road Network Program II

**Executing agency:** Ministry of Public Works and Transportation (MOPT)

**Fiduciary team:** Miguel Baruzze and Raúl Lozano (VPC/FMP)

### **I. EXECUTIVE SUMMARY**

- 1.1 The assessment of fiduciary capacity was based on fiduciary execution experience in operations with the same executing agency: the Cantonal Road Network Program (CRNP I) (operation 2098/OC-CR), now in its closing phase; the Transport Infrastructure Program (operation 3071/OC-CR), currently in execution; and information compiled in working meetings with government authorities.
- 1.2 The executing agency has adequate fiduciary capacity to implement the operation. Nonetheless, certain aspects should be addressed with a view to improving the effectiveness of the execution phase; these are included in this document as fiduciary strengthening proposals.

### **II. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY**

- 2.1 The borrower will be the Republic of Costa Rica. The MOPT will serve as executing agency, with the participation of the municipios in their capacity as beneficiaries of the program's activities. The executing agency will act through a Program Executing Unit (PEU) that reports to the Public Works Division.
- 2.2 In terms of country financial systems, Costa Rica's public finance management was satisfactory overall in 2016, as measured by the Public Expenditure and Financial Accountability framework. The corresponding report essentially covered the budgetary expenses approved by the Legislative Assembly (i.e. central government spending). Use of the treasury single account subsystem for payments in Bank-financed projects reduces the main fiduciary risks in terms of payments, cash flow management, and reconciliations. The Office of the Comptroller General of the Republic (CGR) also provides scrutiny of public finances.

- 2.3 According to the 2015 evaluation of Costa Rica's government procurement system, although a single law<sup>1</sup> governs procurement, each contracting entity issues its own regulations,<sup>2</sup> bidding documents differ from buyer to buyer, and the country does not have a unified procedures manual, although it does have a unified online purchasing system. Costa Rica's general administrative procurement system is markedly rigid; it includes a system of prior controls and response to complaints involving the CGR, which means it takes a long time to definitively award contracts, thereby delaying procurement processes.

### III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 A risk analysis workshop was held during the program's design phase, with the participation of staff of the MOPT, the Ministry of Finance's Office of Public Credit (DCPMH), and the Bank's project team. That workshop determined that there was a medium-level of fiduciary risk. This will necessitate intensive fiduciary supervision at the start of execution, with a view to making recommendations for improvement in the early stages and taking timely corrective action. The following risks were identified: (i) the allocation of budgetary funding for program execution is not processed periodically and on time; and (ii) delays occur in the processing of program payments, which in turn result lead to contract management difficulties and execution-related delays. Accordingly, the following mitigation measures will be adopted: (i) a budget execution monitoring mechanism will be implemented, which will require the executing agency to submit a semiannual budget execution report to the Bank to facilitate the timely identification of the moment when the processing of an additional budget allocation should begin; and (ii) training workshops will be held with contractors to share lessons learned from the CRNP I, an official from the MOPT's Finance Division will be appointed to work full-time on the program, and arrangements will be made for making program payments on days that do not coincide with the ministry's normal payment schedule.
- 3.2 The following fiduciary risks in procurement were rated medium: (i) delays due to complaints and appeals lodged with the CGR in the various phases of the process; (ii) delays in the management of contracting processes in the MOPT procurement unit; and (iii) little interest or capacity among the construction firms that participate in the bidding processes. The following are proposed as mitigation measures: (i) require adequate profiles for the PEU team; (ii) provide training in the procedures specified in the program Operating Manual; (iii) group works packages to attract contractors with greater execution capacity; (iv) create a special procurement procedure; and (v) issue upgraded bidding documents (for national and international competitive bidding).

---

<sup>1</sup> The Administrative Procurement Act governs procurement processes by the organs of the Executive Branch, the Judiciary, and Legislative Branch, the Supreme Electoral Tribunal, the CGR, the Office of the Ombudsperson, decentralized subnational and institutional sectors, non-State public agencies, and public enterprises.

<sup>2</sup> Article 109 of the Administrative Procurement Act and its reforms establishes that each of the organs or entities subject to that act may issue supplementary regulations as needed to improve the performance of administrative procurement activities.

#### **IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE LOAN CONTRACT**

- 4.1 It was agreed that the minimum level of justification required to be able to access a new advance of funds will be 60% of the cumulative balance pending justification to the Bank.
- 4.2 It was agreed that the U.S. dollar equivalent of expenses incurred in Costa Rican currency will be calculated using the benchmark selling exchange rate published by the Central Bank of Costa Rica on the payment date.

#### **V. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL MANAGEMENT**

##### **A. Programming and budget**

- 5.1 The MOPT will be in charge of formulating the budget and, in coordination with the DCPMH, will undertake all procedures to ensure the resources needed for program execution are included in the national budget, and it will also process requests for an adjustment of budget appropriations, at least annually.
- 5.2 In coordination with the MOPT Finance Division, the PEU will prepare a semiannual budget execution report, containing information on the original budget appropriation approved by the Legislative Assembly, and progress made in executing the program's budgetary appropriations. Accordingly, the data source will be the Integrated Financial Management System (SIGAF).

##### **B. Treasury**

- 5.3 The National Treasury's single account principle will be used to manage the liquidity of the loan proceeds disbursed by the Bank, since the latter are public revenues collected by the government. The executing agency, in coordination with the Ministry of Finance, will provide a bank account for the exclusive use of the program, to which the loan disbursements will be made.
- 5.4 The PEU will identify and implement a suitable system for monitoring and control of the funds disbursed by the Bank. To that end, it will use the reports specified by the Bank, and keep records that make it easy to identify movements of the loan proceeds; and prepare any reports and revisions that the Bank may request.

##### **C. Disbursements and cash flow**

- 5.5 Disbursements of resources charged against the loan must fulfill the requirements specified in the project documents and will be released under the following modalities:
  - a. Advances of funds: the Bank will make advances based on a financial plan that reflects the project's liquidity needs for an agreed-upon period and in accordance with the Financial Management Guide for IDB-financed Projects (Operational Policy OP-273-6). The executing agency may request a new advance of funds when at least 60% of the total cumulative balance pending justification has been accounted for. Inasmuch as the program will be executed through subnational government agencies, which involves a complex accounting and financial management cycle with lengthy periods, this exceptional level of justification was agreed upon, pursuant to the provisions

of Operational Policy OP-273-6, for projects in which the execution mechanism is complex, decentralized, and includes several coexecuting agencies, different levels of authority (federal, state, or other subnational levels), or a combination thereof.

- b. Direct payments: made by the IDB to suppliers or contractors on behalf, and at the request, of the borrower and/or executing agency, for eligible goods and services intended for program execution.

5.6 Pursuant to the provisions set out in document AB-2990, disbursement of the loan proceeds by the Bank will be phased as follows: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months, in all cases as of the date the loan is approved by the Board of Executive Directors. These limits may become inapplicable in the event that the Bank's policy requirements regarding such limits are fulfilled, provided that the borrower has been notified in writing.

#### **D. Accounting, information systems, and reporting**

5.7 The executing agency will use SIGAF as the basis for monitoring budget execution and preparing program financial reports. The PEU will maintain appropriate accounting records for program transactions, both for the Bank's financing and for the local contribution. The PEU's administrative-Finance area will coordinate with the MOPT Finance Division, as well as with the subexecuting agencies, as the case may be, on the necessary and timely flow of financial information.

5.8 The following financial reports will be required semiannually: (i) the program's financial statements, including: (a) statement of accumulated investments and statement of cash received and disbursements made. These should include information on the loan proceeds and the local counterpart contribution; and (b) reconciliation of the bank account used to manage the loan proceeds; and (ii) a budget execution report, containing information on the original budget appropriation approved by the Legislative Assembly, and progress made in executing the program's budgetary appropriations.

5.9 The program's financial statements will be prepared on a cash accounting basis.

#### **E. Internal control and internal audit**

5.10 The executing agency is subject to the internal control system established for the central government, in accordance with current Costa Rican law. The PEU will set up and maintain an appropriate internal control system for the program.

#### **F. External control**

5.11 Annually during execution and at the end of the program, the PEU will submit the program's financial statements audited by a firm of auditors acceptable to the Bank. These will contain: (a) the statements mentioned in paragraph 5.8; and (b) notes to the financial statements in accordance with accounting standards.

5.12 The external audit firm's report will contain its opinion on the audited financial statements, in accordance with the terms of reference approved by the Bank. The audited statements will be submitted within 120 days after the close of each fiscal year (31 December). The last fiscal year will run from 1 January through the date of the last disbursement or another date agreed upon by the parties.

**G. Financial supervision plan**

- 5.13 In view of the findings of the institutional capacity assessment, the risk analysis, and the proposed execution mechanism, financial supervision will include at least one semiannual visit in the first year of execution and at least one annual visit beginning in the second year of execution. These supervisory visits will verify implementation of the financial management agreements and requirements specified in the program documents, and, as applicable, the implementation of any recommendations arising from the analysis of the audited financial statements. The external audit firm will verify that the proceeds are being executed in compliance with the provisions of the loan contract. Disbursements will be reviewed on an ex post basis and may be included in the scope of supervision visits.

**H. Execution mechanism**

- 5.14 The executing agency will act through a PEU that reports to the MOPT's Public Works Division (paragraph 2.1).
- 5.15 The PEU will be responsible for the program's technical, operational, and fiduciary management, as set forth in the loan proposal and the program Operating Manual.

**VI. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION**

- 6.1 The fiduciary agreements and requirements for procurement specify the provisions applicable to all procurement processes envisaged under the program.

**A. Procurement execution**

- 6.2 **Use of the country procurement system.** The country procurement subsystems approved by the Bank may be applied: (i) to all contracts for goods and nonconsulting services procured under the framework agreements method, as provided for in the Administrative Procurement Act, when involving amounts below the Bank's established threshold for using the shopping method for off-the-shelf goods and services (US\$250,000); (ii) to all contracts for goods and nonconsulting services up to the Bank's threshold for using the shopping method for complex goods and services (US\$50,000); and (iii) to all individual consultant contracts.<sup>3</sup>
- 6.3 Any system or subsystem subsequently approved by the Bank will be applicable to this operation. The procurement plan and its updates will indicate which contracts will be executed through the approved country systems.

**B. Procurement of works, goods, and nonconsulting services**

- 6.4 Works, goods, and nonconsulting services will be procured pursuant to the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and its updates.
- 6.5 All procurement of works, goods, nonconsulting services, and consulting services must be included in the procurement plan approved by the Bank through the Procurement Plan Execution System (SEPA) or its replacement, if any.

---

<sup>3</sup> These will be indicated in the procurement plan and will follow national procedures and abide by the country guidelines on the remuneration of public sector consultants. In exceptional cases, the Bank may authorize use of its policies for special or technically complex cases.

- 6.6 Contracts for works, goods, and nonconsulting services generated under the project and subject to international competitive bidding (ICB) will be executed using the standard bidding documents issued by the Bank. Tenders subject to national competitive bidding and other methods will use the standard bidding documents or others as agreed upon with the Bank.
- 6.7 **Community participation in procurement.** It is anticipated that as many as 20 microenterprises could be contracted, for which the respective service standards for Routine Road Maintenance Microenterprise Partnerships (MEMRs) will be created. The ad hoc procedure should be described in the program Operating Manual, since one of the program's objectives is to strengthen the institutions responsible for managing the road network by promoting women's participation in the MEMRs, pursuant to the provisions of paragraph 3.17 of document GN-2349-9.
- 6.8 **Selection and contracting of consultants.** This process will abide by the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9) and its updates. Consulting service contracts are listed in the procurement plan and will be executed using the standard request for proposals issued by the Bank.
- 6.9 Single-source selection identified ([justification](#)):
- The Fundación de la Universidad de Costa Rica (FUNDEVI), specifically the university's National Materials and Structural Models Laboratory, will be directly contracted to provide consulting services valued at approximately US\$383,500 to help the cantons review and validate road surface georeferencing. As this entity has qualifications and experience of exceptional worth for the services required by the program, its direct contracting is justified pursuant to paragraph 3.10(d) of document GN-2350-9.
  - The Fundación de la Universidad Nacional (FUNDEUNA), specifically the university's School of Road Planning, will be directly contracted to provide consulting services valued at approximately US\$676,500 for formulating road maintenance, development and safety plans. In this case, direct contracting is justified owing to the need for technical continuity and the School's experience of exceptional worth for the services required by the program, as provided for in paragraphs 3.10(a) and (d) of document GN-2350-9.
- 6.10 Individual consultants will be selected on the basis their qualifications to do the work and the profiles defined in the Operating Manual.
- 6.11 The thresholds for ICB and international shortlist are as follows:

Method	ICB – works	ICB – Goods and Nonconsulting Services	International Shortlist for Consulting Services (US\$)
<b>Threshold</b>	US\$3 million	US\$250,000	US\$200,000

## VII. MAIN PROCUREMENT

7.1 See [procurement plan](#).

Procurement category	Amount financed by the Bank (US\$)	Total Project Amount (US\$)
Works	43,941,049	43,941,049
Nonconsulting services	7,539,200	7,539,200
Consulting services	7,207,252	7,207,252
Personnel	1,050,800	1,050,800
Unallocated	84,297,699	92,297,699
<b>Total</b>	<b>144,036,000</b>	<b>152,036,000</b>

## VIII. PROCUREMENT SUPERVISION

- 8.1 The review method will be determined by the Bank in the procurement plan. Reviews will be ex post, except where ex ante supervision is justified. Procurement that is processed through the country system will also be supervised through that system.<sup>4</sup>
- 8.2 The ex post review will be performed annually as indicated in the program supervision plan. Ex post review reports will include at least one annual inspection visit,<sup>5</sup> chosen from among the procurement processes subject to ex post review. At least 10% of the contracts reviewed must be physically inspected.

<sup>4</sup> Depending on the extent of system use, supervision can be complemented with project audits, in which case it should be mentioned in this annex.

<sup>5</sup> Inspection verifies that the items procured actually exist, but leaves the verification of quality and compliance with specifications to the sector specialist.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/18

Costa Rica. Loan \_\_\_\_/OC-CR to the Republic of Costa Rica. Cantonal Road  
Network Program II. Third Program in the Cooperation Framework for the  
Financing of Investment Projects (CR-X1007)  
Approved by Resolution DE-82/08

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 Cantonal Road Network Program II, in the cooperation framework for the financing of investment projects (CR-X1007) approved by Resolution DE-82/08. Such financing will be for the amount of up to US\$144,036,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_\_ 2018)