



# Board of Executive Directors

## For consideration

On or after 29 January 2019

PR-4670  
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**Public**  
**Simultaneous Disclosure**

**To:** The Executive Directors  
**From:** The Secretary  
**Subject:** Guatemala. Proposal for a loan for the "Road Infrastructure Development Program"

**Basic Information:** Loan type ..... Global Multiple Works Operation (GOM)  
Borrower ..... Republic of Guatemala  
Amount ..... up to US\$150,000,000  
Source ..... Ordinary Capital

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**Remarks:** This operation is included in Annex III of document GN-2915, "2018 Operational Program Report" or the respective update. However, its amount exceeds the ceiling established for Group D countries. Therefore, the operation does not qualify for approval by No-Objection Procedure, in accordance with Part III of document GN-1838-3.

**Reference:** GN-1838-3(6/18), DR-398-18(8/18), GN-2915(2/18), GN-2915-2(8/18)



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**GUATEMALA**

**ROAD INFRASTRUCTURE DEVELOPMENT PROGRAM**

**(GU-L1169)**

**LOAN PROPOSAL**

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Proposed resolution

<b>ANNEXES</b>	
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<b>LINKS</b>
<b>REQUIRED</b>
1. <a href="#">Multiyear execution plan</a> and <a href="#">annual work plan</a>
2. <a href="#">Monitoring and evaluation plan</a>
3. <a href="#">Environmental and social management report (ESMR)</a>
4. <a href="#">Procurement plan</a>
<b>OPTIONAL</b>
1. <a href="#">Guidelines for execution mechanism</a>
2. <a href="#">Demographic data for the area of intervention</a>
3. <a href="#">Ex ante economic evaluation</a>
4. <a href="#">Gender</a>
5. <a href="#">Executive summary of the RN-12 South engineering studies</a>
6. <a href="#">Executive summary of the Paquip – Motagua River engineering studies</a>
7. <a href="#">Executive summary of the Tecpán - Patzún engineering studies</a>
8. <a href="#">Annual work plan of the DGC (2017)</a>
9. <a href="#">Report on the Guatemalan road system</a>
10. <a href="#">Map of the Guatemalan road system</a>
11. <a href="#">Program Operations Manual</a>
12. <a href="#">Alignment of the Road Infrastructure Development Program with the current public policy framework</a>
13. <a href="#">Table of tentative projects proposed by the executing agency</a>

## ABBREVIATIONS

AADT	Annual average daily traffic
CGC	Contraloría General de Cuentas [Office of the Comptroller General]
CIV	Ministry of Communications, Infrastructure, and Housing
COVIAL	Unidad Ejecutora de Conservación Vial [Road Maintenance Execution Unit]
DGC	Highway Administration
EIRR	Economic internal rate of return
ESMR	Environmental and Social Management Report
MARN	Ministry of Environment and Natural Resources
PDV	Plan de Desarrollo Vial [Road Development Plan]
PCU	Program coordination unit
RED	Road Economic Decision Model
RVN	Red Vial Nacional [National Road Network]
SEGEPLAN	Secretaría de Planificación y Programación de la Presidencia [Planning and Programming Secretariat, Office of the President of Guatemala]
STA	Single Treasury Account

**PROJECT SUMMARY**  
**GUATEMALA**  
**ROAD INFRASTRUCTURE DEVELOPMENT PROGRAM**  
**(GU-L1169)**

Financial Terms and Conditions						
<b>Borrower:</b> Republic of Guatemala			<b>Flexible Financing Facility<sup>(a)</sup></b>			
<b>Executing agency:</b> Ministry of Communications, Infrastructure, and Housing (CIV), acting through the Highway Administration (DGC)			<b>Amortization period:</b>	24 years		
			<b>Disbursement period:</b>	6 years		
			<b>Grace period:</b>	6.5 years <sup>(b)</sup>		
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	<b>Interest rate:</b>	LIBOR-based		
<b>IDB (Ordinary Capital):</b>	150,000,000	100	<b>Credit fee:</b>	<sup>(c)</sup>		
<b>Total:</b>	150,000,000	100	<b>Inspection and supervision fee:</b>	<sup>(c)</sup>		
			<b>Weighted average life:</b>	15.25 years		
			<b>Currency of approval:</b>	United States dollars		
Project at a Glance						
<b>Project objective/description:</b> The general objective of the program is to help boost productivity by providing adequate infrastructure and safe and reliable transportation services and facilitating access to markets and basic social services. The specific objectives are to help improve the service and quality levels of the targeted network through improvement and rehabilitation works, with a view to reducing vehicle operating costs and average travel time and increasing traffic.						
<b>Special contractual conditions precedent to the first disbursement of the loan:</b> (i) approval and entry into force of the <a href="#">program Operations Manual</a> agreed upon with the Bank; (ii) creation of a program coordination unit (PCU) within the DGC and identification of the core structure needed for it to function, based on professional profiles previously agreed upon with the Bank; and (iii) submittal of a request for proposals to the firms specializing in technical assistance for project management that comprise the short list, in accordance with terms of reference previously agreed upon with the Bank (paragraph 3.9). See environmental and social contractual conditions in Annex B to the Environmental and Social Management Report (ESMR) ( <a href="#">required link 3</a> ).						
<b>Special contractual conditions for execution:</b> (i) the program, in terms of scope and execution, will be governed by the provisions of the loan contract, its annexes, the program Operations Manual, and any modifications agreed upon by the parties, as well as applicable national legislation; (ii) the CIV will contract the firm specializing in technical assistance for project management within the first 90 days on or after the date on which the Bank regards as fulfilled the conditions precedent to the first disbursement of the loan contract; (iii) budgetary execution of the program will be conducted on the basis of adequate planning at the DGC with the support of a firm specializing in technical assistance for project management and the assignment of a specific budget code to identify the loan; and (iv) the PCU will be comprised of an exclusively dedicated professional technical team, whose costs may be financed with program resources (paragraph 3.10). See fiduciary contractual conditions in Annex III and environmental and social contractual conditions in the ESMR ( <a href="#">required link 3</a> ).						
<b>Exceptions to Bank policies:</b> None.						
Strategic Alignment						
<b>Challenges:<sup>(d)</sup></b>	SI	<input checked="" type="checkbox"/>	PI	<input checked="" type="checkbox"/>	EI	<input type="checkbox"/>
<b>Crosscutting areas:<sup>(e)</sup></b>	GD	<input checked="" type="checkbox"/>	CC	<input checked="" type="checkbox"/>	IC	<input type="checkbox"/>

(a) Under 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. The Bank will take operational and risk management considerations into account when reviewing such requests.

(b) Under the Flexible Financing Facility's flexible reimbursement options, changes may be made to the grace period provided the original weighted average life of the loan and the last payment date, as documented in the loan contract, are not exceeded.

(c) 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.

(d) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

(e) 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, problems to be addressed, and rationale

- 1.1 **Overall context.** Thanks to prudent macroeconomic management, Guatemala's macroeconomic performance in recent years has been among the best in Latin America, with a growth rate of 3.2% in 2017 and a projected growth rate of 3.0% in 2018. At the same time, however, Guatemala has one of the highest income inequality levels in the region, as well as high levels of poverty, particularly in communities in the country's interior, rural areas (76.1%), and indigenous populations (79.2%). Growth has not been sufficient to raise the gross domestic product (GDP) per capita, which in 2017 was US\$4,470.
- 1.2 **Significance of the transportation sector for the country's productivity.** Guatemala is characterized by a mountainous topography along its central axis, with challenges in connectivity between its major cities and areas of production. In addition, the geographic dispersal of its population presents challenges for the development of a communications infrastructure and raises the cost of transportation<sup>1</sup> and logistics in the country, affecting business productivity. According to the Global Competitiveness Report, Guatemala is ranked 81st of 138 countries<sup>2</sup> in terms of quality and availability of infrastructure for international trade, and 92nd in terms of roads. The country ranks 111th out of 160 countries<sup>3</sup> in the Logistics Performance Index.
- 1.3 Road transportation plays a vital role in Guatemalan productivity and trade. On an annual basis, 3.5 million vehicles are driven<sup>4</sup> and more than 24 million tons of freight are transported<sup>5</sup> on the national road network, the country's primary road system, illustrated in Figure 1. While the main Central American road network<sup>6</sup> is in good condition, one third of national highways and over half of departmental highways (paragraph 1.7) connecting production areas to the primary system and facilitating the rural population's access to basic social services are unpaved. The sample of projects that were analyzed, which consists of projects located in subtropical areas characterized by heavy rainfall and high agricultural productivity, showed a 15- to 25-kilometer-per-hour drop in average driving speed due to road surface deterioration resulting from erosion and standing water, which significantly increases travel times and costs by necessitating the use of alternative routes during the rainy season. The operational effectiveness of the country's road network is important for

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<sup>1</sup> The estimated cost of transporting a 40-foot container is US\$1.50/km, which is higher than in El Salvador (US\$1.34/km); Honduras (US\$1.24/km); Mexico (US\$1.42/km); and Nicaragua (US\$1.21/km).

<sup>2</sup> The Global Competitiveness Report 2016-2017.

<sup>3</sup> Logistics Performance Index 2016 (World Bank).

<sup>4</sup> Superintendency of Tax Administration.

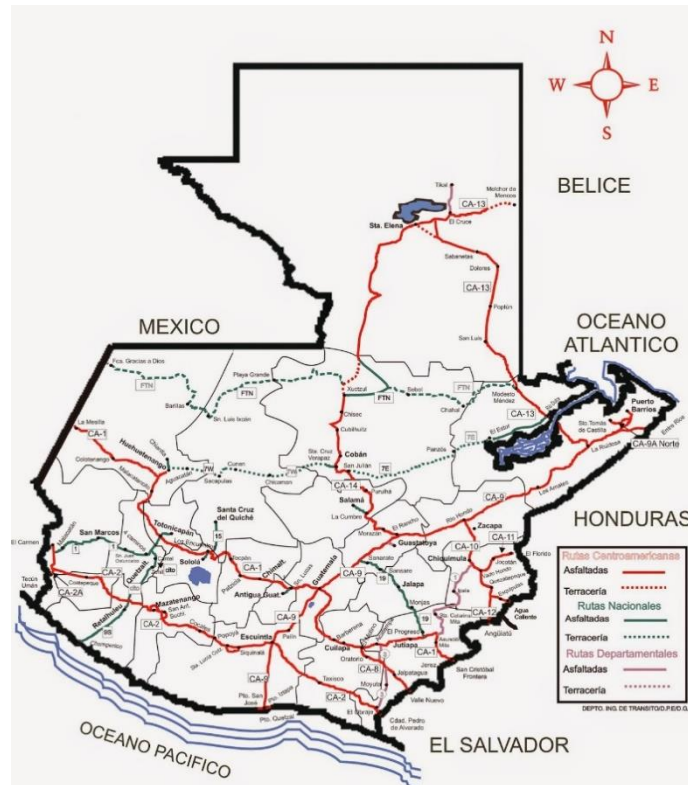
<sup>5</sup> IDB Freight Transport and Logistics Regional Observatory, 2013. In 2016, 6.3 million tons of freight were transported through its border crossings.

<sup>6</sup> In addition to the Central American highways, which are the main road corridors CA-1 and CA-2, connecting the Mexican border to the west with the major ports in the northeast and south (CA-9) and with the Salvadoran border (CA-8 and CA-12), the Honduran border (CA-10 and CA-11), and the north (CA-13 and CA-14), the primary network is comprised of 9 national highways and 11 departmental highways. At the center of these corridors lies the department of Guatemala, which comprises Guatemala City, the department and national capital, and 16 municipios with an aggregate area covering 2,216 square kilometers and 20% of the total population. This department generates 60% of the country's GDP and is home to 68% of the country's industrial and commercial facilities.



expanding access to basic services for the Guatemalan population, a large proportion of which is indigenous and approximately half of which continues to live in rural areas despite a rapid urbanization process.<sup>7</sup> For example,<sup>8</sup> along the Paquip-Motagua River corridor, the fact that the rural road is unpaved limits access for local producers to the municipal and community markets in the area, increasing the time it takes to travel 12.7 kilometers to 33 minutes and raising the vehicle operating costs of transporting produce (corn, beans, and temperate-climate fruits) by 60%. It also limits student access to schools in the city of Chiché.

Figure 1. Primary road network



Source: Highway Administration (DGC).

1.4 **Context of climate change vulnerability.** Road surface deterioration in Guatemala is particularly significant in view of the country's high vulnerability to climate change, as assessed by various indices. The German Watch Global Climate Risk Index, in which a higher ranking denotes higher risk, ranks Guatemala in 11th place out of 183 countries for the 1997-2016 period. This index considers events such as storms, floods, extreme temperatures, heat waves, and cold waves (Kreft et al., 2017). The DARA Climate Vulnerability Monitor index places Guatemala at a "moderate" vulnerability level for 2010, while projecting an "acute" level for 2030. The Notre Dame Global Adaptation Index (ND-GAIN), which measures vulnerability and preparedness for climate change by country, ranked Guatemala as highly vulnerable and very poorly prepared (116th out of 180 countries) in 2014.

<sup>7</sup> Percentages of rural population: 67.3% (1981), 65% (1994), and 53.9% (2002).

<sup>8</sup> Along the Tecpán-Patzún corridor, women make up a small percentage (21%) of the economically active population, which is predominantly rural (73%).

- 1.5 **Context of gender and diversity vulnerability.** Seventy-five percent of the rural population<sup>9</sup> that has difficulty reaching the primary road network is indigenous (paragraph 1.3), and the main economic activity of this community is agriculture. For this group, deficient infrastructure means unequal access to basic social services and community markets as well as steep inflation in basic food prices.<sup>10</sup> There are also gender gaps<sup>11</sup> in the workforce. While women make up 46% of the workforce in Guatemala's commercial and transportation sectors, the jobs held by women are for the most part informal or poor quality. In the agricultural sector, women were 17.5%<sup>12</sup> of the workforce in 2007. This figure is an underestimate, since in most cases women's contributions are considered domestic work or support for men ([optional link 4](#)).

**Table 1. Social and demographic profile of the area**

Department	Population	Indigenous population (%)	Percentage of women	Percentage of poverty
Quiché	953,027	88.6	51.6	76.9
San Marcos	1,019,719	27.0	50.0	76.4
Chimaltenango	612,973	78.4	52.2	78.7

Sources: Municipal development plans, Planning and Programming Secretariat, Office of the President of Guatemala (SEGEPLAN), 2010, and Indicators and Statistics for Peoples and Linguistic Communities in Guatemala (Presidential Commission on Discrimination and Racism against Indigenous Peoples in Guatemala, 2008).

- 1.6 **Description of the national road network.** The density of the Guatemalan road network (15.5 km/100 km<sup>2</sup>) is lower than the average in Latin America (22 km/100 km<sup>2</sup>). In terms of paved kilometers per 100,000 inhabitants, the network performs poorly (48) in comparison with countries such as Mexico (118), Nicaragua (54), Panama (171), and Costa Rica (227).<sup>13</sup> The national road network is classified into three levels based on function: (i) primary: Central American highways and roads connecting with the capitals of the various departments and allowing international links; (ii) secondary: roads interconnecting departmental seats; (iii) tertiary: roads interconnecting municipal seats; and (iv) rural roads: feeders into tertiary roads.
- 1.7 While the national road network is properly distributed, reasonably covering the area of the country, it is deficient in terms of both capacity and quality. From 1985 to 2013, the national road network grew by 80%, at an average annual rate of 1.8%. In addition, there is an insufficient allocation of resources for network maintenance,<sup>14</sup> and the infrastructure has not been adapted to address the effects of climate change.

<sup>9</sup> According to official statistics, close to 40% of the population identifies as indigenous. This includes the Maya, Garífuna, and Xinca peoples.

<sup>10</sup> [See document.](#)

<sup>11</sup> Guatemala has gender equality policies in place at the national level. The main instrument in this regard is the National Policy for the Advancement and Integral Development of Women, which establishes the economic, social, political, and cultural rights of Mayan, Xinca, Garífuna, and Mestizo women.

<sup>12</sup> Instituto Nacional de Estadística [National Statistics Institute]; National Survey on Living Conditions, 2006.

<sup>13</sup> Statistical data from the International Road Federation, 2014.

<sup>14</sup> The lack of periodic maintenance by COVIAL has led comunas to use a portion of their income to grade and compact these roads.

**Table 2. National Road Network**

Classification (km)	Surface type			Total (km)	%
	Asphalt	Concrete	Dirt		
Central American	1,930.2	214.0	0.0	2,144.2	12.5
National	1,858.9	44.0	1,008.8	2,911.7	16.9
Departmental	3,359.1	51.0	4,295.9	7,706.0	44.9
Rural road	15.6	4.8	4,395.9	4,416.3	25.7
Total	7,163.8	313.8	9,700.6	17,178.2	100.0

Source: National road network inventory, Traffic Engineering Department, DGC, 2018.

- 1.8 **Institutional structure of the road sector.** The Ministry of Communications, Infrastructure, and Housing (CIV) is responsible for planning and developing the country's communications, infrastructure, and transport systems. The planning, design, procurement, and management of road construction, improvement, and rehabilitation projects is carried out by the CIV through the Highway Administration (DGC). The DGC will strengthen its management capacity by hiring a specialized firm to provide technical assistance in project management, enabling it to fulfill the following conditions: (i) develop medium- and long-term strategic plans with measurable objectives and results for road network construction, improvement, and rehabilitation actions; (ii) improve project planning, management, and evaluation processes; (iii) improve statistical information on passenger and freight traffic demand; and (iv) improve road safety measures and climate change disaster management as investment priorities.
- 1.9 **Institutional execution capacity in the road sector.** The deterioration of the national road network is partly the result of a reduced availability of human resources and equipment for the supervision of designs and works by the DGC, leading in turn to longer execution periods and higher costs than envisaged in the original designs. This is coupled with: (i) a deficit in the road maintenance funds that were formerly obtained from a fuel surcharge and are currently a budget allocation to the Road Maintenance Execution Unit (COVIAL);<sup>15</sup> and (ii) the suspension of contracts, halting works that generate fiscal contributions and have committed financing.
- 1.10 **Identification of the problem.** The national road network has low levels of operational service (paragraphs 1.2, 1.3, and 1.7).<sup>16</sup> This is an obstacle to promoting the productivity of businesses and the economy as a whole (paragraph 1.3). The poor state of the country's roads increases vehicle operating costs (paragraph 1.3), restricting local competitiveness due to limitations on commercial trade, and extends travel times (by an average of 80%), delaying the development of production and limiting access to basic social services for the rural population, which is characterized by a large proportion of women and indigenous communities.
- 1.11 **Causes of the problem.** One of the main causes of the limited capacity and poor quality of the road infrastructure has been the paucity of investment<sup>17</sup> in improvement

<sup>15</sup> According to the COVIAL execution reports, physical and financial progress was 75% and 50% respectively in 2016, and in 2017 little progress has been made in control of weights and dimensions (46% and 28%, respectively). For the projects under this program, an agreement will be signed with COVIAL to allocate maintenance resources that can ensure the sustainability of the investments.

<sup>16</sup> The service levels reflect road conditions, such as speed, travel time, safety, comfort, and vehicle operating costs.

<sup>17</sup> According to the DGC, the trajectory of the CIV budget allocated to the DGC shows declining levels of execution of works on the order of 30% (US\$90 million less per year) with respect to 2015.

and rehabilitation. This is coupled with a decline in investment in maintenance and with climate change effects on an infrastructure that is vulnerable to natural disasters (paragraph 1.4) and lacks resilience. According to the DGC/CIV institutional plan, the goal is to address road infrastructure problems, identified as “the population with inadequate and nonexistent road infrastructure to provide mobility and access to local, regional, and supraregional markets” and “the rural population with limited access to urban centers and main corridors.”

- 1.12 **Empirical evidence of the benefits of road improvement.** The international evidence indicates that investments to improve the quality and connectivity of transport infrastructure create positive economic and social impacts by reducing travel costs and times, lowering operating costs, and facilitating producer access to new markets. In fact, Bank studies and programs have produced lessons learned and empirical evidence worth noting. The investments in rural roads in the areas of Chontales and the San Juan de Nicaragua River<sup>18</sup> made it possible to significantly boost agricultural and fishing production between 2006 and 2011. The improvement of roads in certain rural areas<sup>19</sup> of Nicaragua led to a rise in the use of health centers and schools thanks to shorter travel times and the development of transportation services.<sup>20</sup> In the social sphere, rural road improvements in Peru expanded school attendance by adolescent boys (ages 12 to 18) and younger girls (ages 6 to 11) by approximately 7%.<sup>21</sup> To date, there have been no evaluations to measure the impact of these investments in the country. This program seeks to compile a baseline through user surveys disaggregated by gender and ethnic group, as well as through satellite information, so as to measure the benefits of the program in terms of reductions in the average time it takes for farmers to reach markets and for the population to get to basic social services.
- 1.13 **Rationale for interventions.** With a view to solving the identified problems, the program is justified by its contribution toward achieving productivity gains in the targeted areas and favoring the wellbeing of the population through reduced travel times and vehicle operating costs, while promoting sustainable transit that can help expand access to markets and social services for the beneficiary population (51.1% women and 61.2% indigenous communities - Table 1). In addition, these interventions will serve to reinforce the capacity of the DGC by incorporating management systems and better standards related to: (i) climate-resilient infrastructure;<sup>22</sup> (ii) road safety; and (iii) the development of guidelines and good practices for road planning.
- 1.14 **Proposed program intervention.** The proposal is to provide adequate infrastructure, specifically in the form of improvement and rehabilitation of roads that connect production areas and departmental capitals to the primary network, allowing greater freight and passenger traffic. The baseline will be disaggregated by gender and ethnic group. In addition, the program will seek to address the deficit in the execution of CIV investments in road infrastructure by improving the technical and

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<sup>18</sup> PCR for loan operation 1796/SF-NI.

<sup>19</sup> Nicaragua – Poverty assessment: Challenges and opportunities for poverty reduction, World Bank, 2000.

<sup>20</sup> General Study of the Impact of Rural Roads in Nicaragua, Organization for Economic Cooperation and Development (OECD), (COWI Consulting, 2008).

<sup>21</sup> Contracting the Road to Development: Early Impacts of a Rural Roads Program (Martín Valdivia, 2009).

<sup>22</sup> Resilient infrastructure is designed, built, and operated to be resistant to natural disasters and adverse effects of climate change (e.g., increase in precipitation).

operational capacity of the CIV, promoting proper planning of technical and social-environmental designs, and incorporating climate resilience and gender diversity considerations, with a view to implementing these projects within reasonable time frames and at a reasonable cost. At the same time, the program will address critical preinvestment needs with quality standards, so that other road infrastructure investments will follow this logical sequence for achieving appropriate technical designs and best practices in execution.

Figure 2. Location of the projects included in the sample



Source: DGC.

1.15 **Gender and diversity considerations.** The departments in which the representative sample of the targeted roads is located (Quiché, San Marcos, and Chimaltenango) include the villages of Kaqchikel, Q'anjobal, Akateco, and Chuj,<sup>23</sup> where women account for more than 50.9% of the population.<sup>24</sup> The main economic activity of women in these villages is related to production chains in the agricultural sector<sup>25</sup> and is typically unremunerated:<sup>26</sup> a mere 20% of women in this line of work receive compensation. Using nonreimbursable technical cooperation resources, the proposal is to survey, alongside this operation, information to identify women's economic and labor gaps with a view to proposing actions to benefit the rural indigenous women ([optional link 4](#)). The program will encourage the participation of women in technical and planning roles, in the supervision (paragraph 1.9) of

<sup>23</sup> Indigenous peoples contribute to the nation's economy through the production of goods. They have been and continue to be the main source of agricultural labor in the country (World Bank, 2004a).

<sup>24</sup> Women take part in the entire coffee production chain, from planting to marketing and sale.

<sup>25</sup> Sugarcane and coffee (the major export products) plantations cover 80% of the country's farmland. Analysis, strategy, and instruments for improving freight and commerce logistics in Mesoamerica.

<sup>26</sup> Women actively participate in agricultural and livestock activities (food production, bulking, and processing, and cattle and poultry husbandry) and in production activities (crafts, agroindustry, marketing, and needlework) (Food and Agriculture Organization, 2011).

technical designs and completed works,<sup>27</sup> and in executive positions during the execution of projects.<sup>128</sup>

- 1.16 **Opportunity to contribute to road investment.** After nearly 10 years, this operation is presented as an opportunity for the Bank to contribute with its support to the development of road infrastructure in the country. This commitment, however, required an exhaustive analysis of the execution context in the country and a review of the country's regulatory framework,<sup>29</sup> institutional arrangements, and processes, in order to ensure that it was consistent with the Bank's standards, which has led to the creation of an operation consisting of small independent projects (paragraph 2.1) within the framework of a set of special provisions (paragraph 3.10) as key conditions for ensuring the successful execution of this investment loan.
- 1.17 **The Bank's experience and lessons learned.** The Bank has ample experience in implementing road infrastructure development projects that have helped to strengthen the sector through investment recovery strategies, support for planning capacity, and increased execution efficiency.<sup>30</sup> The Bank has an extensive track record of support to the sector in Guatemala, with operations dating back to 1971,<sup>31</sup> although the last approval of an operation was in 1999.<sup>32</sup> The main lessons learned from projects of this type that have been incorporated into the design of this operation include the need to: (i) provide for supervision of detailed engineering designs to ensure high technical quality; (ii) include the remediation of existing social and environmental liabilities along the roads as part of the investment activities; and (iii) reinforce the technical and operational capacity of the executing agency evaluating and supervising road projects and improve processes in the execution cycle. The Bank has applied these lessons respectively: (i) through a detailed technical review of the final studies submitted to the Bank by the CIV, particularly with respect to their social and environmental impacts; (ii) by financing preinvestment studies; and (iii) by strengthening the operational capacity of the executing agency.
- 1.18 **CIV vision.** The authorities raised the need to rely on the Bank's support to: (i) promote the sustainable mobility of communities and economies in the country's interior by improving the roads that connect them to the primary network; and (ii) strengthen the technical and operational execution capacity of the CIV so as to recover its road investment levels. In response to the priorities of the Guatemalan government, the program encompasses actions pending execution under the Road Development Plan for 2008-2017 while progress is made on the Bank-financed Road Development Plan for 2018-2027.
- 1.19 **The Bank's country strategy with Guatemala.** This operation is aligned with the third pillar of the IDB Group Country Strategy with Guatemala 2017-2020 (document

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<sup>27</sup> This initiative will be promoted by the College of Engineers and any other national training body.

<sup>28</sup> In addition to the information in [optional link 4](#), there is a World Bank study on road maintenance microenterprises in Peru and Nicaragua that have allowed rural women to boost their monthly income and acquire new skills, improving their position within their communities and families.

<sup>29</sup> There is legislation before Congress to modernize the institutional framework of the public sector and create a superintendency with autonomy to manage the country's road assets.

<sup>30</sup> For other experiences, see [optional link 1](#).

<sup>31</sup> The DGC was the executing agency in eight operations that encompassed rehabilitation programs and rural roads.

<sup>32</sup> Contract 1224/OC-GU of 2001.



GN-2899) inasmuch as it will expand and modernize the country's logistics infrastructure and reduce the high costs of transportation and logistics resulting from the deterioration of conditions in the national road network. The program focuses on improving the lives of indigenous rural communities by targeting roads that connect them to the primary network.

- 1.20 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) through the indicator "Roads built or upgraded (km)." The program is strategically aligned with the development challenge of productivity and innovation through the provision of adequate infrastructure and services, which will improve access and reduce transportation time and costs. In addition, the program is aligned with the social inclusion and equality challenge through the provision of adequate infrastructure and services to isolated areas and communities marked by poverty rates that exceed 40%. The program is aligned with the crosscutting issues of gender equality and diversity and of climate change and environmental sustainability inasmuch as it will incorporate considerations of gender diversity (paragraphs 1.5 and 1.15) and resilience to climate change (paragraph 1.4) into the execution of road investments. According to the [Joint Report on Multilateral Development Banks' Climate Finance](#), approximately 60.20% of the operation's resources are invested in adaptation to climate change activities. These resources contribute to the IDB Group target of increasing financing for climate-related projects to 30% of approvals by the end of 2020. The program is consistent with the Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy (document GN-2710-5) by helping to provide quality infrastructure services and enhance efficiency in the delivery of infrastructure services. It is also consistent with the Transportation Sector Framework Document (document-GN-2740-7) by contributing to improvements in the capacity and quality of infrastructure and associated services, and it is aligned with the Transportation Division's strategic areas of climate change and gender. The operation is included in the Update of Annex III of the 2018 Operational Program Report (document GN-2915-2).

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

- 1.21 The general objective of the program is to help boost productivity by providing adequate infrastructure and safe and reliable transportation services and facilitating access to markets and basic social services.
- 1.22 The specific objectives are to help improve the service and quality levels of the targeted network through improvement and rehabilitation works, with a view to reducing vehicle operating costs and average travel times and increasing traffic. To achieve these objectives, the program is structured as follows:
- 1.23 **Component I. Investments in the national road network (US\$145,000,000).** With the resources allocated to this component, the executing agency will procure national road network improvement and rehabilitation works via projects that meet the program's eligibility criteria (paragraph 2.3), ensuring quality standards for the design of structures, junctions, and pavements. Similarly, the executing agency will arrange for the supervision of design and works to ensure adherence to design standards that incorporate social and environmental considerations and road safety, disaster risk reduction, and climate change adaptation measures, as well as technical supervision services for the delivery of completed works.

- 1.24 The road works in the projects identified for the sample consist of upgrading the existing unpaved surface to a paved surface capable of bearing the cumulative load of the projected annual average daily traffic (AADT). In addition, they may include adjustments to the existing vertical and horizontal alignment, major and minor drainage, vulnerability reduction and climate change adaptation measures, road safety devices, and environmental protection measures ([required link 3](#)). The component will also finance the design, supervision, and execution of the works. Workshops on road safety education will be conducted for contractors during the construction stage. Financing will also be provided as part of this component for environmental and social mitigation works, along with the implementation of compensation plans for right-of-way acquisitions, as the case may be.
- 1.25 Under this component, the CIV has submitted three projects<sup>33</sup> for which the technical designs, to the level of detailed engineering specifications, have been completed ([optional link 5](#), [optional link 6](#), and [optional link 7](#)) and which are part of the sample to be presented to the Board: (i) upgrade of road RN-12 South San Maricos-Guativil-EI Quetzal-Sintaná, segment: Guativil-Sintaná (29.35 kilometers) ([optional link 5](#)), with a beneficiary population of 34,762 inhabitants<sup>23</sup> in the municipios of EI Quetzal and San Cristóbal Cucho, 12% of whom are indigenous;<sup>24</sup> (ii) construction of road CA-1 OCC, Chichava to Chiche via Río Motagua, segment: Paquip-Río Motagua (12.7 kilometers) ([optional link 6](#)), with an estimated beneficiary population of 26,214 inhabitants in the Paquip, Villa Nueva, and Chuaracanjay communities, including a high proportion of indigenous people residing in rural areas; and (iii) upgrade of road RD CHM-4, Tecpán Guatemala-Patzún segment (10.7 kilometers) ([optional link 7](#)), with an estimated beneficiary population of 33,862 inhabitants in the municipios of Tecpán and Patzún, 93% of whom are indigenous and 70% of whom live in rural areas. The estimated initial investment amount for these projects is US\$49.4 million, an amount that may be updated when the contract is signed, to reflect cost variations.
- 1.26 The following are tentatively identified additional projects that have been prioritized based on the strategic plans of the CIV. Upon formalization of the loan contract, these projects will be selected by the CIV based on eligibility criteria agreed upon with the Bank: (i) upgrade of road RN-9 South, segment: Aldea Pett (Santa Eulalia)-San Sebastián Coatán-San Miguel Acatán-San Rafael la Independencia, Huehuetenango (37 kilometers); (ii) construction of segment: Santa Cruz Barillas-Río Espíritu (28 kilometers); (iii) upgrade of road RD-ESC-06, segment: RN-14 service road, El Rodeo-Bifurcación CA-02 Occidente, Siquinalá, Escuintla (26 kilometers); and (iv) upgrade of segment: Todos Santos Cuchumatán-Aldea San Martín-Concepción Huista, Huehuetenango (18 kilometers). A breakdown of the preliminary costs of these projects is presented in [optional link 13](#).
- 1.27 In agreement with the Bank, the CIV may replace any of the projects indicated in paragraphs 1.25 and 1.26, provided that the new projects meet the eligibility criteria agreed upon by the parties, are duly justified, and will not the cause the total amount of financing under this operation to be exceeded.
- 1.28 **Component II. Capacity-building and preinvestment (US\$4,300,000).** With the resources allocated to this component, the executing agency will finance studies and technical tools to support the Highway Administration (DGC), ensuring further

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<sup>33</sup> For the projects identified for the sample, only the lengths identified in this paragraph will be covered.



development of technical capacities for the planning and management of projects at the CIV, with the following subcomponents:

- 1.29 **Subcomponent II.1. Management tools for road projects (US\$2,099,000).** This subcomponent will promote a modern and sustainable national road network management system by means of the following activities: (i) contracting of a firm specializing in technical assistance in project management, to improve technical and operational management capacity in the planning division at the CIV and at the DGC for execution of this program; (ii) training in tools and systems for the management of road projects and ongoing evaluation of road pavement conditions, including software, licenses, systems development, and methodologies for investment planning and prioritization and for updating the national road network inventory; (iii) extreme weather vulnerability assessment or blue spot analysis to integrate climate-related risks with a view to prioritizing interventions and ensuring the resilience of the national road network services; and (iv) activities to promote and publicize the program. Blue spot analysis will support decisions on competing measures (larger culverts, elevated roads, or redundant network links) and prioritize the proposed works in a context of growing climate uncertainty. In addition, steps will be taken to promote the participation of women in the execution of the program (paragraph 1.15).
- 1.30 **Subcomponent II.2. Goods and equipment (US\$1,065,000).** This subcomponent will support efforts to strengthen installed capacity in the area of planning at the CIV and the DGC through the procurement of goods and equipment, including, without limitation, computer equipment; vehicles; equipment, scales, and devices for weight and dimensions control; and development of control protocols to improve road asset maintenance and safety practices in accordance with program objectives.
- 1.31 **Subcomponent II.3. Preinvestment and technical assistance (US\$1,136,000).** This subcomponent will support the executing agency with the financing of preinvestment studies that incorporate best practices in road project management, including strengthening of planning capacity and determination of the costs of investment and supervision independent of designs, works, and delivery, including best practices in social and environmental management, gender diversity, and climate change resilience, the latter through a comprehensive vulnerability assessment to determine the criteria to be included in the designs of roads.<sup>34</sup> As a support and institutional strengthening tool, the guidelines for infrastructure design will be updated to incorporate adaptation criteria and identify international good practices.
- 1.32 **Administration, audits, and evaluation (US\$700,000).** This consists of expenses to finance the administrative costs of the consultants hired to support the program coordination unit (PCU) at the DGC, audits, and the monitoring and evaluation of program results. The directors, financial officers, and other personnel who administer public funds and execute the loan proceeds will be authorized as public servants and reporting personnel under line 011 or 022.
- 1.33 **Costs.** The total cost of the program is US\$150 million, financed with the Bank's Ordinary Capital and distributed as follows in Table 3. However, at the request of the executing agency, the borrower and the Bank may agree to changes in the amounts

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<sup>34</sup> Based on a hydrology analysis that will provide key information so that highway drainage designs can be prepared using surface runoff data and considering potential climate change impacts.

allocated to the components and subcomponents as presented in the table of costs, by means of an exchange of letters, without such changes constituting a change in the financial terms of the loan or to the program objective or amount. There are no plans for a counterpart contribution. However, the borrower, through the executing agency, has made a commitment to contribute additional resources as needed to ensure full and uninterrupted execution of the program.

**Table 3. Program cost (US\$)**

<b>Components</b>	<b>Total IDB (Ordinary Capital)</b>
<b>I. Investments in the national road network</b>	<b>145,000,000</b>
I.1 Civil works	134,850,000
I.2 Works supervision	10,150,000
<b>II. Capacity-building and preinvestment</b>	<b>4,300,000</b>
II.1 Management tools for road projects	2,099,000
II.2 Goods and equipment	1,065,000
II.3 Preinvestment and technical assistance	1,136,000
<b>Administration, audits, and evaluation</b>	<b>700,000</b>
<b>Total</b>	<b>150,000,000</b>

### **C. Key results indicators**

- 1.34 The Results Matrix (Annex II) shows the program's: (i) impact; (ii) outcome; and (iii) output indicators, which have been selected to measure, respectively: (i) reduction in travel time to health centers and schools as a result of improved serviceability; (ii) reduction in vehicle operating costs and travel time and increase in AADT; and (iii) length (kilometers) of road upgraded and percentage of women hired in implementation of the works. In addition, the Results Matrix includes indicators to measure the results achieved through capacity-building in terms of including social and environmental, climate change adaptation, and gender diversity considerations in the technical designs.
- 1.35 **Technical and economic feasibility.** The Bank reviewed the technical and economic feasibility studies for projects in the sample and in each case added recommendations based on field visits during preparation ([optional link 3](#)). The evaluation used financial and economic returns and technical criteria to objectively verify the viability of the projects. Economic feasibility is assessed by listing and valuing the project costs on an annual basis and the benefits that would be generated in "without project" and "with project" scenarios. Vehicle operating costs and user time were established by means of the Road Economic Decision Model (RED).<sup>35</sup> This model is based on the same algorithms as used in the Highway Development and Management Model (HDM-4) to calculate vehicle operating costs and user time.
- 1.36 **Results of the cost-benefit analysis of the sample projects.** The economic internal rate of return (EIRR) is 20.8% and the economic net present value (ENPV) is US\$28.511 billion. The sensitivity analysis can be found in [optional link 3](#), and the results of the independent evaluation of the sample projects are shown below.

<sup>35</sup> For a description of the RED model, see [link to the document](#).

**Table 4. Result of the cost-benefit analysis**

Project	EIRR	ENPV US\$ billion
Upgrade RN-12 South: Guativil-EI Quetzal-Sintaná	23.6%	21.311
Upgrade CR CHM-31: Paquip-Río Motagua	12.9%	0.600
Upgrade RD CHM-4: Tecpán-Patzún	21.2%	6.599

- 1.37 **Beneficiaries.** The main beneficiaries are the users of the road network, both local residents and merchandise producers and shippers, thanks to a reduction in overall transportation costs stemming from improved and paved roads, as well as reductions in travel times and vehicle operating costs. The paving works will provide continuous access to health centers and schools for communities that now have limited access, especially during rain events that flood the dirt roads. It is estimated that the works in the three identified projects will directly benefit seven municipios<sup>36</sup> with an approximate population of 200,000. More specifically, the works will benefit residents living in proximity to the targeted roads. Including people living within 2.5 kilometers on either side of the roads, this means that the works will directly benefit approximately 95,000 people. The program will also benefit the transport of goods by facilitating the flow of commerce and promoting economic and social integration between communities and with the country's primary road network. Lastly, the program will benefit tourism and those who use these roads to connect with other areas ([optional link 2](#)).

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 **Modality.** The program will be financed by an investment loan for US\$150 million under the multiple works program modality<sup>37</sup> as it includes works that have similar characteristics but are independent from one another. During preparation, an analysis was conducted on a representative sample totaling US\$49.4 million, which is more than 30% of the program financing amount, in line with the requirements of the financing instrument (paragraph 1.25). The disbursement period is six years from the effective date of the respective contract, in accordance with the following tentative schedule:

**Table 5. Disbursement schedule (US\$ million)**

Component	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
I. Investments in the national road network	15.8	25.6	32.6	30.0	25.0	16.0	145.0
II. Capacity-building and preinvestment	1.3	1.0	0.8	0.6	0.4	0.2	4.3
Administration, audits, and evaluation	0.1	0.1	0.1	0.1	0.1	0.2	0.7
<b>Total</b>	<b>17.2</b>	<b>26.7</b>	<b>33.5</b>	<b>30.7</b>	<b>25.5</b>	<b>16.4</b>	<b>150.0</b>

<sup>36</sup> The municipios encompass a large group of villages and hamlets. For example, the municipio of Tecpán has 1 city, 22 villages, and 36 hamlets.

<sup>37</sup> These loans are designed to finance groups of similar works that are physically similar but independent of each other and whose feasibility does not depend on the execution of any particular number of the works projects. Because not all of the projects to be financed under the loan are known at the time of Bank approval of the loan, the borrower specifies a representative sample of projects prior to approval of the loan. This sample must constitute approximately 30% of the program cost. During implementation, individual investments are financed based on the eligibility criteria set in the loan proposal

- 2.2 **Representative sample.** According to the eligibility criteria for the program (paragraph 3.10) and in accordance with the financing instrument (paragraph 2.1), the representative sample consists of the following: (i) upgrade of road RN-12 South, Guativil-El Quetzal-Sintaná segment ([optional link 5](#)), in the department of San Marcos, which is part of the primary road network, is one of the few unpaved national roads, and connects the high plateau to the southern coast;<sup>38</sup> (ii) upgrade of CHM-31, Paquip-Río Motagua segment ([optional link 6](#)), in the department of Quiché, which provides an alternative route to the departmental capital of Quiché, including the bridge over the Motagua River;<sup>39</sup> and (iii) upgrade<sup>40</sup> of road RD CHM-4, Tecpán Guatemala-Patzún segment ([optional link 7](#)), which joins together two primary roads in the national road network, is located in an area of high production of fruits and vegetables for export, and facilitates access to tourist attractions in the Atitlán Lake region, a major travel destination in the west of the country. It should be noted that any of the projects identified in the sample may be replaced following the review that is conducted, as a function of the length of time that elapses between approval by the Bank's Board of Executive Directors and the entry into force of the loan contract.
- 2.3 **Eligibility criteria for inclusion of projects in the program.** The projects to be financed by Component 1 will require the Bank's no objection and will comply with each of the following criteria: (i) contribute to the development or improvement of the national road network; (ii) enhance regional connectivity to support better territorial integration of isolated areas and communities into the principal network; (iii) satisfy technical,<sup>41</sup> environmental,<sup>42</sup> and social<sup>43</sup> feasibility requirements and contribute to network resilience;<sup>44</sup> and (iv) achieve a positive impact in the respective areas of influence as measured through the EIRR (equal to or higher than 12%). These criteria will be specified along with the corresponding means of verification in the [program Operations Manual](#).
- B. Environmental and social risks**
- 2.4 **Positive social and environmental impacts.** The program has been classified as a category "B" operation<sup>45</sup> in accordance with the Bank's Environment and

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<sup>38</sup> Upgrade of the asphalt surface course, 30-cm subbase, 20-cm base, lined ditches, major and minor drainage, cross and longitudinal tubes, and horizontal and vertical signage.

<sup>39</sup> Asphalt surface course, 30-cm subbase, 20-cm base, lined ditches, minor drainage, cross and longitudinal tubes, and horizontal and vertical signage.

<sup>40</sup> The improvements will consist of the installation of an asphalt surface course, lined ditches, minor drainage works, cross and longitudinal tubes, and horizontal and vertical signage.

<sup>41</sup> Approval of the detailed engineering designs for the project in accordance with core technical standards agreed upon with the Bank.

<sup>42</sup> Projects classified as category "A" operations will be not eligible.

<sup>43</sup> Approval of the resettlement plan based on the identification of impacts in accordance with the Bank's policies.

<sup>44</sup> Based on standards drawn from the blue spot analysis commissioned as part of the program.

<sup>45</sup> Any operation that is likely to cause significant negative environmental and associated social impacts, or have profound implications affecting natural resources, will be classified as Category "A." Category "A" operations are considered high safeguard risk. Operations that are likely to cause mostly local and short-term negative environmental and associated social impacts and for which effective mitigation measures are readily available will be classified as Category "B." Operations that are likely to cause minimal or no negative environmental and associated social impacts will be classified as Category "C."

Safeguards Compliance Policy (Operational Policy OP-703). The program seeks to achieve positive impacts and reduce vulnerability to potential risks arising from climate change.

- 2.5 **Negative environmental and social impacts and mitigation measures.** Strategic environmental and social assessments were prepared for the three sample projects and were posted on the Bank's website ([required link 3](#)). They include the environmental and social management framework (ESMF), a resettlement framework, and an indigenous peoples management framework, in accordance with the Bank's Access to Information Policy (OP-102) and the Environment and Safeguards Compliance Policy (OP-703). The ESMF includes detailed exclusion criteria for projects that will be financed under the program. A small land acquisition and/or expropriation is expected and could in certain cases require minor resettlement. In addition, due to the presence of indigenous peoples, culturally appropriate consultations were conducted. Component II includes studies that will be reviewed by the Bank with a view to obtaining the no objection. All studies and projects will need to comply with the Bank's safeguard policies. The DGC has recent experience addressing socioenvironmental issues, especially with respect to information, consultation, and participation processes with beneficiary communities of projects, which will help ensure that any effects or impacts resulting from the execution of program works are addressed in a timely and consensus-based manner. To this end, the executing agency will have, within its program coordination unit (PCU), personnel who are qualified to address social issues, and the Environmental Management Office at the DGC will focus on addressing possible impacts in its area of specialization.
- 2.6 A series of actions will be carried out to strengthen the DGC's capacity to implement the Bank's policies in order to ensure: (i) adequate communication with and reporting to communities regarding the projects and their potential impacts; (ii) implementation of the consultation processes; (iii) early identification and adequate management of potential resettlements; and (iv) introduction and dissemination of these policies. During program execution, the GDI and ESG teams will conduct periodic inspections (at least every six months) to ensure that these policies are being implemented as established in the environmental and social management plan.
- 2.7 Obtaining approval from the Consejo Nacional de Áreas Protegidas [National Council for Protected Areas] (CONAP) and the Ministry of Environment and Natural Resources (MARN) was identified as a medium environmental risk. The proposed mitigation measure is to familiarize MARN authorities, the Dirección de Gestión Ambiental [Environmental Management Office], and CONAP's Environment Office with the program.

### **C. Fiduciary risks**

- 2.8 While the CIV has a regulatory framework and an integrated financial management system, as well as institutional processes, in place, in practice there are challenges and a series of regulations that restrict the execution of projects. The fiduciary analysis identified the following high risks: (i) lack of sufficient, adequate, and timely budget space and financial quotas to satisfy the payment of obligations, to be mitigated by adequate planning by the DGC, with the support of a firm specializing in technical assistance in project management and the assignment of a specific code for the program in the CIV's budget; and (ii) hybrid application of the Bank's

procurement policies and the Public Procurement Law, creating delays, duplication, and uncertainty, to be mitigated by applying the Bank's procurement policies, including in matters that fall under the jurisdiction of the DGC, such as signing contracts with delegation of the maximum authority of the CIV, appointing bidding process committees and evaluation committees comprised of specialized technical staff with knowledge of these policies, and providing Bank support, advisory services, and training. The fiduciary analysis also identified a medium risk in the use of the Public Procurement Law for final acceptance of completed works; accordingly, it was established that, as a mitigation measure, the Bank's procurement policies would be applied.

#### **D. Other project risks**

- 2.9 **Public management and governance risks.** The following have been classified as high risks: (i) a change of authorities at the CIV and delays in approval of the loan by Congress; (ii) delays in financial, administrative, technical, and legal management; (iii) failure by the PCU to achieve the required coordination with the various technical and operational areas of the ministry in timely fashion to approve the projects; and (iv) delays in the start of the works, given the amount of time it takes to obtain ministerial resolutions approving contracts already signed by the highest authorities at the CIV. To mitigate these risks, the following were considered: (i) familiarize the new authorities with the program, since they have full technical support to steer policy decisions; (ii) strengthen the DGC by hiring specialized external consultants and the firm specializing in technical assistance in project management; (iii) define process flows for program execution in the program Operations Manual; and (iv) apply the Bank's procurement policies.
- 2.10 The following have been classified as medium risks: (i) lack of a DGC team with sufficient power and authority to execute the program; (ii) delays in the implementation of road works due to delays in fulfilling the requirements of the National Public Investment System (SNIP); and (iii) modifications of contracts in execution in terms of time frames and amounts. To mitigate these risks, the following were considered: (i) require a technical team exclusively dedicated to the program as a condition precedent to the first disbursement; (ii) supplement the technical studies required by SEGEPLAN from the initial phase; and (iii) carry out technical, social, and environmental studies to minimize the possibilities of changes and modifications during execution.
- 2.11 **Development risk.** The risk that the government will fail to provide timely maintenance for the works carried out under the program was classified as a high-level risk. It will be mitigated by the CIV's prioritization of maintenance of the completed works.

### **III. IMPLEMENTATION AND MANAGEMENT PLAN**

#### **A. Summary of implementation arrangements**

- 3.1 **Borrower and executing agency.** The borrower will be the Republic of Guatemala, and the executing agency will be the Ministry of Communications, Infrastructure, and Housing (CIV), acting through the Highway Administration (DGC), which will be reinforced in terms of its technical, operational, and financial capacities with the support of a firm specializing in technical assistance for project management to enable it to effectively fulfill its role of ensuring that program resources are managed

- and used in accordance with the corresponding loan contract. The PCU will have an execution mechanism focused on improving sector planning (technical, financial, and procurement-related), execution efficiency (management of time frames and costs), coordination with the other areas of the DGC, and reinforcement of its powers ([optional link 1](#)). In addition, this mechanism may be supported by specialized consultants. The program will include assistance activities in technical and management training areas, as well as support activities in works supervision and contract management, under a technical planning approach for the transportation sector that will benefit the executing agency as a whole.<sup>46</sup> This strengthening is aimed at establishing a decision-making process based on technical aspects and making use of sufficient human and financial resources.
- 3.2 **Roles and responsibilities of the PCU.** The PCU will be responsible for managing procedures and activities for the execution of the program and coordination with the organizational structure of the DGC, i.e., its technical, supervision, financial, administrative, and other divisions.
- 3.3 The program Operations Manual sets out the main procedures that will govern PCU coordination with the various administrative units and technical divisions of the CIV in the context of executing this operation. This coordination refers to PCU management of activities to strengthen the DGC in technical areas (including the social and environmental area) and to strengthen itself in terms of managing the procurement process. These activities are to be carried out with the assistance of a group of program-financed external consultants with pre-identified technical profiles to support the process of preparing technical documentation and decision-making and the assistance of a consulting firm hired to support the PCU with execution processes. The coordination mechanisms with the unit will be described in the program Operations Manual.
- 3.4 **Operational processes – execution cycle.** The program Operations Manual will describe the activities forming part of the execution cycle and the operating processes, including the following: (i) planning; (ii) procurement; (iii) physical and financial execution; and (iv) supervision. The execution cycle activities and indicators for each project, as well as the associated management instruments (Results Matrix, itemized work structure, execution plan, procurement plan, financial plan, and others) will be set out in the program Operations Manual.
- 3.5 **[Program Operations Manual](#).** The program will have a program Operations Manual that will establish technical, environmental, fiduciary, financial, and other operational aspects to be implemented as part of the program's execution arrangements.
- 3.6 **Financial management.** Financial, budget, accounting, and cash management, including payments under the program, will be coordinated by the executing agency and governed by the provisions of the loan contract and the internal rules and regulations of the borrower. The PCU will be supported by suitable specialists and will be governed by the provisions of the loan contract and the rules and regulations governing the executing agency. The fiduciary arrangements for the program are described in Annex III.
- 3.7 **Procurement.** The procurement of goods, works, and services arising from the program will be coordinated by the executing agency, and the Bank's procurement

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<sup>46</sup> The measures will be implemented through various procurements outlined in Component II of the program (capacity-building), generally focusing on strengthening human capital in the transportation sector.



policies (documents GN-2349-9 and GN-2350-9) will apply, in accordance with the loan contract. The procurement processes will be evaluated by the technical staff appointed by the DGC, trained and knowledgeable in the Bank's policies and the dynamics of the program. The procurement agreements and requirements will be made and fulfilled as provided in Annex III.

- 3.8 **External audits.** Within 120 days of the end of each fiscal year, the executing agency will submit to the Bank annual financial statements for the program, audited by an independent firm acceptable to the Bank.<sup>47</sup> The audit costs will be funded with program resources. The terms of reference for contracting the audits will be previously agreed upon and require the Bank's no objection.
- 3.9 **Special contractual conditions precedent to the first disbursement of the loan: (i) approval and entry into force of the program Operations Manual agreed upon with the Bank; (ii) creation of a program coordination unit (PCU) within the DGC and identification of the core structure needed for it to function, based on professional profiles previously agreed upon with the Bank; and (iii) submittal of a request for proposals to the firms specializing in technical assistance for project management that comprise the short list, in accordance with terms of reference previously agreed upon with the Bank.** These conditions are considered essential, since the Bank and the borrower must: (i) be in agreement with the regulatory manual that will govern program execution; and (ii) have identified the unit and the strengthening required to execute the program.
- 3.10 **Special contractual conditions for execution:** (i) the program, in terms of scope and execution, will be governed by the provisions of the loan contract, its annexes, the program Operations Manual, and any modifications agreed upon by the parties, as well as applicable national legislation; (ii) the CIV will contract the firm specializing in technical assistance for project management within the first 90 days on or after the date on which the Bank regards as fulfilled the conditions precedent to the first disbursement of the loan contract; (iii) budgetary execution of the program will be conducted on the basis of adequate planning at the DGC with the support of a firm specializing in technical assistance for project management and the assignment of a specific budget code to identify the loan; and (iv) the PCU will be comprised of an exclusively dedicated professional technical team, whose costs may be financed with program resources. These conditions are essential due to the challenges associated with program execution in Guatemala and based on a review of the country's regulatory framework and institutional arrangements and the Bank's procedures.

## **B. Summary of results monitoring arrangements**

- 3.11 **Monitoring and evaluation.** The executing agency will submit to the Bank quarterly consolidated progress reports, indicating the advances made on each component and including the agreed upon indicators set out in Annex II (Results Matrix). The reports will include, among other things: (i) a description of activities carried out; (ii) an updated schedule of physical execution and disbursements; (iii) the extent of fulfillment of agreed-upon execution indicators; (iv) activities plan for the next quarter; and (v) potential events that could jeopardize execution of the program. The borrower will deliver to the Bank a midterm evaluation (when 50% of program

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<sup>47</sup> The audits may be performed by the Office of the Comptroller General (CGC), if eligible.



disbursements have been made) and a final evaluation (when 90% of execution has been achieved) of the program.

- 3.12 Before-and-after methodologies and ex ante cost-benefit analyses will be used for monitoring and evaluation ([required link 2](#)) of the expected results of the program. Vehicle operating costs and user times were established using the RED model, which is based on the same algorithms as used by the HDM-4 model to calculate vehicle operating costs and user time.

Development Effectiveness Matrix		
Summary		
<b>I. Corporate and Country Priorities</b>		
<b>1. IDB Development Objectives</b>	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change and Environmental Sustainability	
Country Development Results Indicators	-Formal employment of women (%) -Roads built or upgraded (km)* -Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)*	
<b>2. Country Development Objectives</b>	Yes	
Country Strategy Results Matrix	GN-2899	Ampliar y modernizar la infraestructura logistica
Country Program Results Matrix	GN-2915-2	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)		
<b>II. Development Outcomes - Evaluability</b>		
	Evaluable	
<b>3. Evidence-based Assessment &amp; Solution</b>	7.9	
3.1 Program Diagnosis	1.8	
3.2 Proposed Interventions or Solutions	3.6	
3.3 Results Matrix Quality	2.5	
<b>4. Ex ante Economic Analysis</b>	9.0	
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	0.0	
4.4 Sensitivity Analysis	2.0	
4.5 Consistency with results matrix	1.0	
<b>5. Monitoring and Evaluation</b>	7.2	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	4.7	
<b>III. Risks &amp; Mitigation Monitoring Matrix</b>		
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	
<b>IV. IDB's Role - Additionality</b>		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting. Procurement: Information System.
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		

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

This US\$ 150 million operation finances a Multiple Works Program whose general objective is to contribute to the improvement of Guatemala's productivity through the provision of adequate infrastructure and transportation services that allow access to markets and basic social services. The program will contribute to improve service levels and the quality of the roads intervened, through improvement and rehabilitation works, which will result in reduction of vehicle operating costs and average travel times, and increased traffic. The roads to be intervened show a high deterioration and increase of travel times in the rainy season. The program seeks to improve the intervened roads in such a way that their speed of circulation is similar in the rainy and dry seasons, and to eliminate the number of days where roads are closed due to rain. This will reduce travel and transport costs and improve access to markets and basic services. Additionally, the program seeks to strengthen the institutional capacity in the road building and maintenance sector.

The ex-ante economic analysis of the intervention, carried out on a representative sample, is appropriate, with adequate assumptions for this type of project, and with reasonable sensitivity analyzes. The net present value of the segments in the representative sample is US\$ 28.5 million, with an internal rate of return of between 12.9% and 23.6% for each segment studied.

The project proposes an evaluation plan that proposes an ex-post cost-benefit analysis that is well presented and developed. This type of analysis does not allow the ex-post effectiveness to be measured, but the efficiency of the project at its end.

## RESULTS MATRIX

<b>Project objective:</b>	The general objective of the program is to help boost productivity by providing adequate infrastructure and safe and reliable transportation services and facilitating access to markets and basic social services. The specific objectives are to help improve the service and quality levels of the targeted network through improvement and rehabilitation works, with a view to reducing vehicle operating costs and average travel times and increasing traffic.
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### EXPECTED IMPACT

Indicators	Unit of measure	Baseline	Baseline year	Final target (2022)	Means of verification	Comments
<b>Impact #1. Sustainable mobility of individuals and improved access to basic services and consumer markets</b>						
Average time to reach health centers and schools	Minutes	ND*	2018	ND	Surveys	Baseline and target values to be measured prior to the start of the works
Average time to reach consumer markets	Minutes	ND*	2018	ND	Surveys	To be measured through disaggregated user surveys (income, location, age, etc.)
Average time for women to reach health centers and schools**	Minutes	ND*	2018	ND	Surveys	Baseline and target values to be measured prior to the start of the works
Average time for women to reach consumer markets**	Minutes	ND*	2018	ND	Surveys	To be measured through disaggregated user surveys (gender, ethnic group, income, location, age, etc.)
Average time to reach health centers and schools, by ethnic group**	Minutes	ND*	2018	ND	Surveys	Baseline and target values to be measured prior to the start of the works
Average time to reach consumer markets, by ethnic group **	Minutes	ND*	2018	ND	Surveys	Will be measured through disaggregated user surveys (income, location, age, etc.)

\* The baseline measurement will be a function of the methodology, which will be determined on the basis of a consulting assignment to be contracted with resources from the audits and evaluation component. The potential sources of information are described in paragraph 3.3.1 of the [monitoring and evaluation plan](#).

\*\* These indicators are considered tracking indicators, in the sense that they characterize the impact of the program on certain population groups.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline	Baseline year	Final target (2022)	Means of verification	Comments	Alignment with institutional results
<b>Outcome 1. Reduction in vehicle operating costs on the road segments targeted by the program</b>							
Vehicle operating cost in the Paquip-Río Motagua segment	US\$/Veh-km	1.09	2018	0.68	Ex post economic evaluation	The ex post economic evaluation will be included in the project completion report.	The DGC/CIV has, within its mandates, responsibility for construction, maintenance, and improvement of the national road network, which includes lowering vehicle operating costs. <sup>1</sup>
Vehicle operating cost in the San Marcos-Sintaná segment	US\$/Veh-km	0.97	2018	0.58			
Vehicle operating cost in the Tecpán Guatemala-Patzún segment	US\$/Veh-km	0.91	2018	0.51			
<b>Outcome 2. Reduction in user travel times on the road segments targeted by the program</b>							
Reduction in travel time in the Paquip-Río Motagua segment	Minutes	33	2018	19	Ex post economic evaluation	The ex post economic evaluation will be included in the project completion report.	Another DGC mandate is to have a highway system that facilitates the mobility of the population.
Reduction in travel time in the San Marcos-Sintaná segment	Minutes	76	2018	42			
Reduction in travel time in the Tecpán Guatemala-Patzún segment	Minutes	27	2018	15			
<b>Outcome 3. Increase in sustainable mobility on the road segments targeted by the program</b>							
Annual average daily traffic (AADT) in the Paquip-Río Motagua segment	Number of vehicles	329	2018	498	Ex post economic evaluation	The ex post economic evaluation will be included in the project completion report.	Among its lines of activity, the DGC/CIV is responsible for designing and executing road infrastructure that enables access to services and facilitates connectivity between rural areas.
AADT in the San Marcos-Sintaná segment	Number of vehicles	675	2018	1,035			
AADT in the Tecpán Guatemala-Patzún segment	Number of vehicles	652	2018	1,005			
Increase in the number of days per year that the roads are serviceable	Number of days	280	2018	365	Amount of precipitation	Meteorological service reports	All plans, programs, and projects will include analysis and measures for mitigation and adaptation to adverse phenomena and the

<sup>1</sup> Institutional Strategic Plan 2016-2023 of the Ministry of Communications.

Indicators	Unit of measure	Baseline	Baseline year	Final target (2022)	Means of verification	Comments	Alignment with institutional results
							effects of climate change.
<b>Component 2. Capacity-building and preinvestment</b>							
Number of bidding processes for projects with additionality in terms of infrastructure resilience to climate change and road safety	Number of bidding processes	0	2018	8	Terms and conditions for completed bidding processes		All plans, programs, and projects will include analysis and measures for mitigation and adaptation to adverse phenomena and the effects of climate change.

#### OUTPUTS

Outputs	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Comments
<b>Component 1. Investments in the national road network</b>										
Paquip-Río Motagua segment upgraded	Km	0	2018	5.3	7.4	0	0	12.7	Semiannual reports and works acceptance certificates	
San Marcos-Sintaná segment upgraded	Km	0	2018	5	17.9	0	0	22.9	Semiannual reports and works acceptance certificates	
Tecpán Guatemala-Patzún segment upgraded	Km	0	2018	4	6.7	0	0	10.7	Semiannual reports and works acceptance certificates	
Upgraded segments to be added	Km	0	2018	0	8	16	34.2	58.2		
<b>Component 2. Capacity-building and preinvestment</b>										
Number of people trained to improve their technical and operational capacity	Number of people trained	0	2018	10	10	15	15	50	Certificates of acceptance of the services	
Female staff hired to supervise works	%	0	2018	2	2	2	4	10	Project reports, invitations to bid, employee payroll, agreements	Conducting communication, publicity, and dissemination campaigns, as well as signing agreements with universities and

Outputs	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Comments
										engineering programs
Preinvestment studies conducted	Studies	0	2018	2	2	2	2	8	Certificates of acceptance of the studies	
Vehicles procured	Vehicle	0	2018	4	4	0	0	8	Certificates of acceptance of the equipment	
Computers procured	Computer	0	2018	8	12	13	0	33	Certificates of acceptance of the equipment	
Laser printers procured	Printer	0	2018	7	0	0	0	7	Certificates of acceptance of the equipment	
Photocopiers procured	Photocopier	0	2018	2	0	0	0	2	Certificates of acceptance of the equipment	
Software licenses procured	Software license	0	2018	4	0	0	0	4	Certificates of acceptance of the licenses	
Facilities remodeled and maintained	Units	0	2018	0	1	0	0	1	Certificates of acceptance of the units	
Technical (weight-in-motion measurement and other) equipment procured	Unidad	0	2018	2	1	1	0	4	Certificates of acceptance of the equipment	
Contracted consultants, disaggregated by gender	Consultant	0	2018	12	12	6	6	36	Consultancy agreements signed	Contracting will promote gender parity

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

<b>Country:</b>	Republic of Guatemala
<b>Name:</b>	Road Infrastructure Development Program
<b>Operation:</b>	GU-L1169
<b>Executing agency:</b>	Ministry of Communications, Infrastructure, and Housing (CIV)
<b>Prepared by:</b>	Lilena Martínez /Rodrigo Castro (FMP/CGU)

### I. EXECUTIVE SUMMARY

- 1.1 The Ministry of Communications, Infrastructure, and Housing (CIV)<sup>1</sup> is the institution responsible for setting policies and enforcing the legal regime applicable to the establishment, maintenance, and development of communications and transportation systems in Guatemala; the use and development of radioelectric frequencies and airspace; public works; meteorology, volcanology, seismology, and hydrology information services; and housing and human settlements. Its duties include managing the contracting, concession, and other decentralized forms of delivery of public services within its jurisdiction and supervising their implementation.
- 1.2 An assessment of the fiduciary aspects for the execution of externally financed projects, including aspects related to regulations, organization, financial and procurement management, internal control, and expertise and availability of human resources, concludes that while the CIV was previously responsible for the execution of Bank-financed projects and is currently executing loan operation 1733/OC-GU Project to Support the Rural Economic Development Program, its execution capacity is limited, since it lacks autonomy and a staff exclusively dedicated to the execution of the program, which is subject to the bureaucracy and red tape of the Highway Administration (DGC) and of the CIV in turn. In that regard, mitigation measures are needed to reduce the fiduciary risk, which is considered high.
- 1.3 Financial management will be performed in accordance with the Guidelines for financial management of Bank-financed projects (OP-273-6) and the Sistema Integrado de Administración Financiera [Integrated Financial administration System] (SIAF), accepted as the country system. Procurements will be handled in accordance with the Policies for the procurement of works and goods financed by the IDB (document GN-2349-9) and the Policies for the selection and contracting of consultants financed by the IDB (document GN-2350-9). The portal of the Sistema de Adquisiciones y Contrataciones del Estado de Guatemala [Guatemalan Public Procurement System] (Guatecompras) will be accepted solely as an information system for posting procurement processes below the thresholds for international competitive bidding (ICB) and national firms.
- 1.4 Responsibility for program execution will lie with a program coordination unit (PCU), which it will perform based on adequate planning at the DGC with the support of a firm specializing in technical assistance and the assignment of a specific code for the program. The total cost of the program is US\$150 million, financed with resources from the Bank's Ordinary Capital.

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<sup>1</sup> <http://www.civ.gob.gt>

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

- 2.1 The Budget Law of Guatemala regulates the budget, accounting, treasury, and public credit subsystems which comprise the SIAF and operate under the principle of regulatory centralization and operational decentralization. The CIV is a central government entity. Accordingly, it is subject to all budget, accounting, and treasury regulations applicable to entities of that type and requires the approval of the Ministry of Public Finance for most procedures. The assessment of fiduciary capacities determined that there is a lack of sufficient staff with the necessary expertise to execute the program. In addition, the financial and procurement processes are very lengthy due to the involvement of multiple entities outside the PCU, creating a mix of Bank policies and national legislation that results in excessive delays and jeopardizes the success of the procurement processes.

## **III. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES**

- 3.1 An assessment of the program's financial fiduciary risk concluded that, while the CIV has a regulatory framework and an integrated financial management system, as well as institutional processes, in place, in practice there are challenges and a series of regulations that restrict project execution and create significant delays in fulfilling payment obligations: (i) there is a lack of sufficient, adequate, and timely budget space and financial quotas to satisfy the payment of obligations. Consequently, the financial risk is high, but it can be mitigated by setting up a PCU endowed with the staff, power, and authority required for the performance of its duties and by the assignment of a code for the program.
- 3.2 In terms of procurement, the CIV lacks sufficient human resources to carry out the processes applying Bank policies. As a result, procurement processes are carried out using Bank policies and national legislation on a hybrid basis, leading to delays and duplication and creating uncertainty in contract management<sup>2</sup> as well as delays in contract execution and in final acceptance of and payment for works. Thus, the risk is considered high. As a mitigation measure, execution should be carried out through the PCU with the support of a firm specializing in technical assistance for project management to implement the processes and sign contracts with delegation of the maximum authority of the CIV, ensuring that procurement personnel have experience in applying the Bank's procurement policies and ensuring that personnel responsible for evaluating the procurement processes have technical expertise and knowledge of the Bank's procurement policies. These requirements will be set out in the loan contract. The fiduciary analysis also identified application of the Public Procurement Law (LCE), with respect to the acceptance of completed works, as a medium risk, and as a mitigation measure, the Bank's procurement policies will apply.
- 3.3 In conclusion, the fiduciary team believes that, if the proposed measures are implemented, the overall fiduciary risk of the program may be considered medium-level.

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<sup>2</sup> Through the use of contract suspension, among other things.



#### **IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OR EXECUTION ANNEX OF THE CONTRACT**

- 4.1 The following will be special contractual conditions for execution:
- 4.2 Opening of a specific subaccount in United States dollars (US\$) under the Single Treasury Account (STA) at the Bank of Guatemala, into which disbursements will be deposited and payments will be issued in the framework of the program, and any foreign exchange gains or interest earned during program execution may be used to finance activities relevant to the program objectives. This is in response to a request made by the borrower, which is included in all loan contracts, so that the Bank of Guatemala will authorize the opening of an account in U.S. dollars.
- 4.3 A specific code will be assigned for the loan within the CIV budget, with a structure that reflects the components included in the chart of costs of the loan contract. This is to ensure the use of the financial management country system without the need to keep subsidiary or parallel ledgers in Excel, providing for easier program execution and rendering of accounts.
- 4.4 For program execution, a PCU will be created, consisting of a professional technical team devoted exclusively to the program, whose costs may be financed with program resources. This is to ensure the proper technical profiles and exclusive dedication with a view to effective program execution.
- 4.5 In the framework of the proposed program, the DGC may sign contracts for works, goods, and services of multiyear duration, for which the annual and multiyear budgetary allocations will be arranged based on the commitment and obligations assumed in the framework of the program and in accordance with rules and regulations in force. This is to give the executing agency the option of signing multiyear contracts and thus avoid an unnecessary fragmentation of contracts that include execution beyond the current fiscal year. The Bank's procurement policies will apply, in order to avoid the uncertainty created by hybrid use of the Public Procurement Law (LCE).
- 4.6 For program procurement, there will be no restrictions on the participation of individuals or legal entities from Bank member countries, nor will there be any registration or professional association membership requirements in the country for purposes of participating in calls for bids or proposals. This is to ensure that no restrictions are placed on the participation of companies, firms, or consultants from Bank member countries.
- 4.7 The bid evaluation boards or committees will be appointed by the PCU coordinator and will be comprised of technical staff familiar with the dynamics of the program and the Bank's procurement policies. This is to ensure that the LCE is not applied on a hybrid basis to evaluate bids or proposals.
- 4.8 These conditions need to be included in order to avoid the uncertainty generated by the hybrid use of the LCE.
- 4.9 Use of disbursement modalities established in the Guidelines for financial management of Bank-financed projects (OP-273-6). As a general rule, the program will disburse resources using the advance of funds modality, based on an actual financial plan for six months or other reasonable period to be evaluated during execution, subject to documented fulfillment of payments. A subsequent disbursement may be processed when supporting documentation has been

provided for 80% of the previous advance of funds. Disbursements will be reviewed on an ex post basis.

- 4.10 The exchange rate to be used for rendering accounts of program resources will be the rate reported by the Bank of Guatemala on the date of payment. Any foreign exchange gains and interest earned will be used to finance expenditures related to the program objectives.

## V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 The Policies for the procurement of works and goods financed by the IDB (document GN-2349-9) and the Policies for the selection and contracting of consultants financed by the IDB (document GN-2350-9) will be applied, as follows:
- a. **Procurement of works, goods, and nonconsulting services:** Works, goods, and nonconsulting services arising under the program and subject to international competitive bidding (ICB) will be procured using the standard bidding documents issued by the Bank. Bidding processes subject to national competitive bidding (NCB) will be executed using bidding documents agreed upon with the Bank. The program sector specialist is responsible for reviewing the technical specifications for procurement during the preparation of selection processes. No direct contracting or contracting requiring bidder prequalification is anticipated in this program.
  - b. **Selection and contracting of consultants:** Consulting service contracts arising under the program will be executed using the standard request for proposals issued by or agreed upon with the Bank. The program sector specialist is responsible for reviewing the terms of reference for the contracting of consulting services. No direct contracting is anticipated in this program.
  - c. **Selection of individual consultants:** Individual consultants may be selected on the basis of their qualifications, based on a comparison of the qualifications of at least three candidates.
  - d. **Use of the country procurement system:** To date, the Bank has not approved any Guatemalan procurement system or subsystem, or any other system to be used in procurements financed with Bank resources, with the exception of the Guatecompras information system, solely for advertising purposes.
  - e. **Threshold amounts applicable to the program:** The recommended threshold amounts for this operation with respect to international advertising are those established by VPC/PDP for Guatemala.

**Table 1. Threshold amounts (US\$ thousands)**

International advertising (works)	Shopping (works)	International advertising (goods) <sup>3</sup>	Shopping (goods)	International advertising (consulting)	Shortlist 100% national
≥ US\$1,500	< US\$150	≥ US\$150	< US\$25	≥ US\$200	< US\$200

**Notes:**

- \* ICB and NCB for works and goods and selection of consulting firms will be supervised on an ex ante basis. Shopping and selection of individual consultants may be supervised ex post after three processes in each case have been satisfactorily reviewed on an ex ante basis.
- \*\* Ex post supervision requires that inspection visits be carried out every six months. The ex post review reports will include at least one physical inspection visit,<sup>4</sup> selected from among the processes subject to ex post review (at least 10% of the reviewed contracts will be physically inspected).

**A. Main procurements**

5.2 The largest procurements under the program are related to road infrastructure, preinvestment studies, and goods. Once the loan is approved, the PCU will be responsible for preparing the procurement plan<sup>5</sup> generated from the multiyear execution plan, and the procurement specialist will ensure that it is appropriate and of the quality required under the loan contract and the Bank's procurement policies by issuing a binding opinion.

**Table 2. Main procurements**

Activity	Type of procurement	Estimated invitation date	Estimated amount US\$000
<b>Goods</b>			
Vehicles	ICB	2019	168
Computer equipment	NCB	2019	97
Equipment for weight-in-motion measurement	ICB	2021	800
<b>Works</b>			
Upgrade of road RN 12 south, phase I, San Marcos-Guativil-El Quetzal-Sintaná segment	ICB	2019	23,479
Upgrade of Paquip-Río Motagua road segment	ICB	2019	10,975
Upgrade of road RD CHM-4, Tecpán Guatemala-Patzún segment	ICB	2019	9,244
Upgrade of segments: (to be determined, subject to fulfillment of the program eligibility criteria - estimate of three processes)	ICB	2019	91,042

<sup>3</sup> Includes nonconsulting services.

<sup>4</sup> The inspection verifies the existence of the procurement, leaving verification of quality and compliance with specifications to the sector specialist.

<sup>5</sup> Document [GN-2349-9](#) (paragraph 1.16); and document [GN-2350-9](#) (paragraph 1.23). The borrower shall prepare and, before loan negotiations, furnish to the Bank for its approval, a Procurement Plan acceptable to the Bank [for an] initial period of at least 18 months.

Activity	Type of procurement	Estimated invitation date	Estimated amount US\$000
<b>Consulting services (firms)</b>			
Preinvestment studies	QCBS	2019	1,136
Supervision of upgrade of road RN 12 South, phase I, San Marcos-Guativil-EI Quetzal-Sintaná segment	QCBS	2019	1,640
Supervision of upgrade of road segment Paquip- Río Motagua	QCBS	2019	710
Supervision of upgrade of road RD CHM-4, Tecpán Guatemala-Patzún segment	QCBS	2019	599
Supervision of projects (for projects to be determined, subject to fulfillment of the program eligibility criteria - estimate of three processes)	QCBS	2019	7,201
Consulting firm to provide support	QCBS	2019	1,000
<b>Consulting services (individual)</b>			
Individual consultants	NICQ/3CV	2019-2020-2021	739

- 5.3 **Initial procurement plan.** To consult the 18-month procurement plan, see [required link 4](#).
- 5.4 **Procurement supervision.** Procurement will be supervised using the information recorded in the multiyear execution plan. In addition, there will be at least one fiduciary supervision visit per year.
- 5.5 **Records and files.** The PCU will be responsible for keeping the program files and records. The support consultants for procurement under the program will be responsible to the PCU for ensuring institutional capacity in terms of procurement and process integrity. The internal work flows will be prepared and annexed to the program Operations Manual.

## VI. FINANCIAL EXECUTION AGREEMENTS AND REQUIREMENTS

- 6.1 **Programming and budget.** Operational budget management will be carried out in the Sistema de Contabilidad Integrado [Integrated Accounting System] (SICOIN), in accordance with the specific regulations to be included in the loan contract. For program execution, a specific code will be assigned within the CIV budget, with a structure that reflects the components included in the cost table in the loan contract.
- 6.2 **Accounting and information systems.** The program's accounting and records will be managed on a decentralized basis at the executing agency, using SICOIN, the only source of information on the use of program funds. The existing structure of expenditures and financial accounts will be used and there will not be a special chart of accounts. The supporting documentation for payment transactions will remain on file at the executing agency, which will be responsible for making the accounting entries and payments to be charged to the program. The transaction amounts will be converted using the exchange rate reported by the Bank of Guatemala on the transaction date.
- 6.3 **Disbursements and cash flow.** The STA mechanism is acceptable for consistently managing the Bank-financed resources. The resources received in the form of advances of funds will be deposited in a secondary U.S. dollar account under the STA, from which payments will be made to suppliers, beneficiaries, and contractors.

- 6.4 The Bank will disburse resources in the form of advances of funds or through other modalities as established in OP-273-6. Advances of funds will be made on the basis of a financial plan generated from the multiyear execution plan for the following six months or other reasonable period, once payments have been duly made and documented. Subsequent disbursements may be processed when supporting documentation has been provided for 80% of the previous advances. If necessary, the possibility of using the flexibilization arrangements established in OP-273-6 may be examined.
- 6.5 **Internal control and internal audits.** Program execution will be overseen by the internal control structure established in the program Operations Manual. Guatemala's internal control subsystem will not be used in view of its fledgling level of development.
- 6.6 **External control and reports.** The program financial statements will be annually audited by an independent, private auditing firm acceptable to the Bank, in accordance with the terms of reference and standard model contract, or by the Office of the Comptroller General (CGC), which is eligible to audit Bank-financed projects.
- 6.7 **Financial supervision.** It will be carried out by consulting budget, payment, and accounting information in the SICOIN and the multiyear execution plan. At present, plans call for conducting at least one fiduciary financial supervision visit per year and reviewing the unaudited financial information prepared by the executing agency.
- 6.8 **Execution mechanism.** Execution will be decentralized and entrusted to the PCU, which will be responsible for procurement and for budget, accounting, and cash management, including payments. The PCU will have the skilled human resources, powers, duties, and systems management for effective execution of the program, and will be given the core personnel structure, permits, and delegation of authority required to carry out administrative and financial management on a deconcentrated basis. For procurement purposes, the PCU will have a procurement specialist with experience in Bank policies. Procurement processes will be evaluated by technically trained PCU staff with knowledge of Bank policies.
- 6.9 **Other financial management agreements and requirements.** N/A.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/19

Guatemala. Loan \_\_\_\_/OC-GU to the Republic of Guatemala  
Road Infrastructure Development Program

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Guatemala, as borrower, for the purpose of granting it a financing to cooperate in the execution of the Road Infrastructure Development Program. Such financing will be for the amount of up to US\$150,000,000 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 \_\_ \_\_\_\_\_ 2019)