

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **NICARAGUA**

### **TRANSPORT SECTOR SUPPORT PROGRAM I**

**(NI-L1049)**

### **LOAN PROPOSAL**

This document was prepared by the project team consisting of: Alfonso Salazar (TSP/CES), Project Team Leader; Cesar Castellón (TSP/CNI); Alejandro Gómez (TSP/CDR); Jean Paul Velez (INE/TSP); Sandra Iriarte (INE/TSP); Denis Corrales (VPS/ESG); Bernadete Buchsbaum (LEG/SGO); Juan Carlos Lazo (PDP/CNI); Brenda Álvarez (PDP/CNI); and Alma Reyna Selva (CID/CNI).

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ELECTRONIC LINKS	
<b>Required</b>	
1.	Annual Work Plan (AWP) <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311878">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311878</a>
2.	Monitoring and evaluation arrangements <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35312115">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35312115</a>
3.	Procurement plan <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35312802">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35312802</a>
4.	Environmental and social management report (ESMR) <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311001">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311001</a>
<b>Optional</b>	
5.	Project pipeline, characterization and relevant data <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35310961">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35310961</a>
6.	Project Selection Criteria <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35310942">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35310942</a>
7.	Preliminary economic evaluation of the sample <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35367484">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35367484</a>
8.	Environmental and Social Management Plan (ESMP) <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311344">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311344</a>
9.	Evaluation report on institutional procurement capacities (MTI) <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311918">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311918</a>
10.	Evaluation report on institutional procurement capacities (FOMAV) <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311924">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35311924</a>
11.	Fiduciary contributions during project identification and execution <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35312823">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35312823</a>
12.	Technical support note for preparation of the operation <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35158297">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35158297</a>
13.	Pilot evaluation in Nicaragua: proposal for inclusion of the second road safety initiative <a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35220951">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35220951</a>

## **ABBREVIATIONS**

CABEI	Central American Bank for Economic Integration
DGV	Roads and Highways Department
EIRR	Economic internal rate of return
ESMP	Environmental and Social Management Plan
FOMAV	Road Maintenance Fund
HDM-4	Highway Development and Management Model
MTI	Ministry of Transport and Infrastructure
NDF	Nordic Development Fund
PCU	IDB Project Coordination Unit of MTI
SNIP	National Public Investment System
TOR	Terms of reference

**PROJECT SUMMARY  
NICARAGUA**

**TRANSPORT SECTOR SUPPORT PROGRAM I (NI-L1049)**

<b>Financial terms and conditions</b>					
<b>Borrower:</b> Republic of Nicaragua			<b>Source of financing</b>	<b>OC</b>	<b>FSO</b>
<b>Executing agencies:</b> Ministry of Transport and Infrastructure (MTI) and Road Maintenance Fund (FOMAV)			Amortization period:	30 years	40 years
			Grace period:	5.5 years	40 years
			Period for startup of works:	2.5 years	2.5 years
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	Disbursement period:	3 years	3 years
IDB (OC)	10,100,000	50%	Interest rate:	LIBOR*	0.25%
IDB (FSO)	10,100,000	50%	Supervision and inspection:	*	N/A
Local	0	0%	Credit fee:	**	N/A
Total	20,200,000	100%	Currency:	US\$ Single Currency Facility	US\$
<b>Project at a glance</b>					
<p>The proposed operation is the Bank's first loan for the Transport Sector Support Program, whereby Bank funds may be provided in a modular manner in the years 2010, 2011 and 2012. Each operation in the program will be submitted individually to the Bank's Board of Executive Directors for consideration, and will comprise investments that have their own rationale and feasibility while allowing comprehensive targets to be achieved for the sector cumulatively. The <u>general objective</u> of the program is to make road transport in Nicaragua more efficient in order to stimulate economic activity and contribute to the well-being of the population, while facilitating integration of the country's regions with the rest of Central America. The <u>specific objectives</u> are: (i) to reduce vehicle operating costs; (ii) to increase travel speeds; (iii) to reduce disruptions to transit; (iv) to reduce accident rates; and (v) to foster conservation of road infrastructure.</p>					
<p><b>Special contractual conditions:</b> (a) <b>precedent to the first disbursement under the loan:</b> (i) signature and entry into force of an agreement on which there has been agreement in advance between the Bank, the borrower, and FOMAV for implementation of the road maintenance component (paragraph 3.7); (ii) Approval and entry into force of the Program Operating Manual, with the Bank's no objection, by the borrower and the executing agencies (paragraph 3.2); (b) <b>during execution:</b> (i) the borrower undertakes to commission, at the same time as the project designs are commissioned, a technical audit leading to approval of the project designs, with such audit being financed out of the proceeds of the loan; (ii) before tenders are called for any of the works under the access roads/trunk network and the road maintenance components, the borrower must present, to the Bank's satisfaction, updated engineering designs, detailed budgets, an economic evaluation and the baseline for the respective projects (paragraph 2.7); (iii) before issuing calls for tenders for any works in sensitive areas (where natural habitats, archaeological sites, and indigenous communities may be affected, or involuntary resettlement may be required), the borrower will be required to present, to the Bank's satisfaction, an Environmental and Social Impact Study (paragraph 2.3); (iv) the executing agencies must ensure that works financed under the first Bank loan adhere to the Environmental and Social Management Plan (ESMP), which is part of the Program Operating Manual (paragraph 2.3); and (iv) FOMAV must accept responsibility for maintaining the road works financed under the project once the warranty periods have expired, and will be required to present the corresponding annual reports ((paragraph 2.9).</p>					
<b>Exceptions to Bank policies:</b> None					
<b>Project qualifies for:</b>		SEQ [ ] PTI [ ] Sector [X] Geographic [ ] Headcount [ ]			

\* Mandatory interest rate setting policy (Libor)

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

## I. DESCRIPTION AND RESULTS MONITORING

### A. Introduction

- 1.1 **The importance of road transport.** Road transport plays a key role in a country's economic development. The competitiveness of its industry, agriculture and trade is closely linked to the efficiency and effectiveness of transport services. Every year some 300,000 trucks travel over the national road system, carrying more than 10 million tons of freight, 25% of which is destined for export. In fact, a high percentage of Nicaragua's foreign trade moves through the ports of Honduras and Costa Rica, making the national road network the principal link between the country's productive sectors and export markets.<sup>1</sup>
- 1.2 **Description of the national road network.** The national road network has a total extension of 21,411 km, and is divided into: (i) 1,080 km of primary trunk roads; (ii) 999 km of secondary trunk roads; (iii) 1,238 km of primary feeder roads; (iv) 2,682 km of secondary feeder roads; and (v) 15,440 km of local roads.<sup>2</sup> Yet the density of the network is low (at 164 km/1000 km<sup>2</sup>, the lowest in Latin America) and presents quality problems (only 12% is paved, and much of it has exceeded its useful life). With growing rates of vehicle use, strategic segments of the network suffer from problems of functionality and road safety for users. Recurring natural phenomena cause frequent disruptions to transit and damage to road infrastructure. In the past, road maintenance did not receive the importance it deserved, and this is another factor in the deterioration of the existing network. In general terms, development of the road network has fallen behind, as has its capacity to carry traffic, and this has posed an obstacle to national efforts to boost economic growth and reduce poverty.<sup>3</sup>

### B. Background, problem addressed and rationale

Table 1. MTI investments 2006-2010 (US\$ millions)

Infrastructure	2006	2007	2008	2009	2010*
External funding	44.3	57.8	70.2	82.4	87.5
Domestic funding	22.3	31.4	17.2	27.1	23.1
Budgetary execution	66.6	89.2	87.4	109.5	110.6
Budgetary expenditure	40.9	75.5	78.5	100.2	58.9

\* data for 2010 are to July

<sup>1</sup> For further details, see Technical Note #35158297.

<sup>2</sup> *Revista Vial*, MTI, 2008

<sup>3</sup> The link between road development and economic development is documented clearly in Richard Robinson & Bent Thagesen, *Road Engineering for Development*, Chapters 1 and 2, Second Edition, Taylor & Francis Group.

- 1.3 **Road sector institutional framework.** The Ministry of Transport and Infrastructure (MTI) is the agency responsible for organizing and directing transport policy and for planning, preparing, contracting and administering road improvement, construction and rehabilitation projects. Table 1 shows the sources of financing for MTI over the last five years, demonstrating the significant growth in budgetary execution. Yet over the course of various Bank operations the MTI has shown some institutional limitations when it comes to investment planning and project management, and these need further attention.

**Table 2. Maintenance expenditure under FOMAV 2006-2010 (US\$ millions)**

<b>Infrastructure</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Amount budgeted	11.5	22.7	31.7	36.0	39.5
Amount spent	10.6	18.5	27.1	30.1	34.7
a) periodic maintenance	2.2	4.1	5.8	6.3	8.8
b) routine maintenance	5.2	8.9	13.5	14.8	16.4
c) municipal transfers	2.3	3.2	4.5	6.1	6.4
d) supervision	0.3	1.2	2.1	1.7	1.4
e) other expenses	0.6	1.0	1.2	1.2	1.6

- 1.4 The Road Maintenance Fund (FOMAV) is an autonomous state agency for conservation of the maintainable road network nationwide.<sup>4</sup> It is funded by the proceeds from a surcharge on gasoline and diesel, currently set at US\$0.16 per gallon, which translates into an actual budget of US\$24 million for the current year. Table 2 shows maintenance spending by FOMAV over the last five years, and demonstrates the growth in the institution's budget. Currently the main challenges facing FOMAV are to find new sources of funding, as its current resources are inadequate to cover the maintenance needs of the Nicaraguan road system, and to strengthen its institutional management capacity.

**Table 3. Road development operations supported by the Bank in Nicaragua 2004-2009**

<b>IDB Operation</b>	<b>IDB loan</b>	<b>Date of approval</b>	<b>Amount approved (US\$ millions)</b>	<b>Amount disbursed (US\$ millions)</b>	<b>Percentage disbursed (%)</b>
NI0170	1530/SF-NI	06/2004	40.0	29.56	73.9%
NI0113	1599/SF-NI	12/2004	25.9 <sup>5</sup>	21.59	83.2%
NI-L1006	1796/SF-NI	11/2006	49.5	20.37	41.1%
NI-L1035	2225/BL-NI	11/2009	43.5	-	-

- 1.5 **Bank involvement in the sector.** The Bank has a long history of support for the transport sector in Nicaragua, with operations dating back to 1965. Since 2004 the

<sup>4</sup> The "maintainable network" comprises roads that are in good condition and do not need rehabilitation and that have been transferred by MTI to FOMAV.

<sup>5</sup> After cancellation of US\$14.05 million from an originally approved loan of US\$40 million.

Bank has approved four operations totaling US\$158.9 million for improving travel conditions and safety on the national road network, integrating the country's various regions, and contributing to sustainable economic and social development. When all the activities planned under this cycle of projects are completed, some 380 km of road will have been rehabilitated and improved, and special maintenance will have been undertaken for another 580 km. Travel times over these upgraded roads have been reduced on average by 54% for automobiles, 53% for buses, and 57% for heavy trucks. Table 3 shows the amounts approved for each operation, and the current status of execution.

- 1.6 In addition, these loan operations have earmarked about US\$4.5 million for institutional development in the sector. The process began in 2004 with a diagnostic assessment of the MTI, analyzing all aspects related to the project cycle and the capacities of each section of the MTI to carry out its functions. Since then, work has continued on preparing and implementing a medium-term institutional development strategy, detailed at the specific activity level, in order to bring greater efficiency and effectiveness to MTI's work.
- 1.7 **New priorities for the sector.** The approval of loan 2225/BL-NI (operation NI-L1035) in November of last year marked the end of one project cycle, and MTI's current authorities have proposed to the Bank the following priorities for future work: (i) expand investment in road development in order to meet the network's tremendous needs in terms of coverage and quality; (ii) focus investment and maintenance on roads that will foster the integration of producing regions into the national economy; (iii) work with international cooperation partners to maximize the impact of investments; and (iv) reinforce work with the municipal governments to expand their capacities for project planning and execution and for maintenance of municipal roads.
- 1.8 **The problem to be addressed.** Road transportation in Nicaragua suffers from many different problems that have both direct and indirect impacts and different levels of causality. For purposes of this program, the problem has been defined as inadequate operating capacity of the road network, together with a management system that needs to use a limited supply of public funds more efficiently. Evidence of this situation is: (i) inadequate quality of the trunk road system, which links productive centers and export markets, and of the local roads network, which provides access to small municipios and rural areas (paragraph 1.2); (ii) accelerated deterioration of the road network through lack of control over vehicle weights and dimensions, and lower levels of investment in maintenance (paragraph 1.4); (iii) rising road accident rates;<sup>6</sup> and (iv) important institutional weaknesses, such as the lack of methodologies for considering the impact of climate change on investment planning. These elements interrelate on several different levels: (i) economic – higher transport costs affect the competitiveness of industry, commerce and agriculture; (ii) social – a deteriorated road system limits local possibilities for pursuing income-generating activities and impedes access to social and educational services; and (iii) sectoral – continuing weaknesses in road

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<sup>6</sup> The road accident rate rose 5% between 2005 and 2010.



transport facilities and institutions are limiting development of a modern and efficient road sector.

- 1.9 **The 2008-2012 country strategy and Bank programming.** The general objective of the Bank's Country Strategy with Nicaragua for 2008-2012 (document GN-2499) is to provide selective support for the Nicaraguan government in reducing and managing vulnerabilities, which inhibit attainment of the country's growth and equity goals. The Bank's contribution is expected to focus on five objectives in the government's plan, one of which is to improve the existing road system. Specifically, the Country Strategy calls for the Bank to contribute to the expansion of the paved road system and the system maintained by FOMAV, giving priority to interventions that integrate the regions more closely into the national economy and link the country to the other countries of the Mesoamerican region.
- 1.10 **The Transport Sector Support Program.** The MTI and the Bank have agreed that the next three operations for the sector should be planned as a Transport Sector Support Program ("the program"). Each operation under the program will be submitted individually for consideration by the Bank's Board of Executive Directors, beginning with this operation. Its overall design offers two very important advantages: (i) in technical terms, it allows for strategic planning of investments so as to make them more efficient and maximize their impact, focusing on improvements to the road network and its institutional structure in place of isolated, one-off actions; and (ii) in financial terms, it allows total funding for the three Bank operations to be taken into account in calculating concessional levels, so as to maximize the potential to leverage cofinancing.
- 1.11 The program reaffirms and expands the Bank's demonstrated commitment to the sector, something that will be welcomed by members of the donor community interested in participating with resources additional to the Bank's financing. To date, there has been intensive dialogue with different players in the sector, in particular the Central American Bank for Economic Integration (CABEI), the European Union (EU), the Japanese International Cooperation Agency (JICA), the Spanish Cooperation Agency for International Development (AECID) and the Nordic Development Fund (NDF). In particular, CABEI has declared its interest in contributing a total of US\$26 million to the program, of which US\$8 million could become available this year. The proposed target is that the overall program should leverage parallel financing in the order of US\$75 million.
- 1.12 The program has been designed as a "multiple works program", which will give it the flexibility to adjust its investment plan on the basis of: (i) the flow of funds to the program from the Bank and other partners; and (ii) the executing capacity of MTI and FOMAV. Program activities will be grouped into five strategic components. The components (paragraphs 1.15, 1.16, 1.17, 1.18 and 1.19) have been designed as self-sufficient, so that each of them individually will produce benefits and effects sufficient to guarantee their feasibility. Table 4 shows the programming of resources by component as currently planned for the entire program, both for the Bank and other donors.

**Table 4. Preliminary multiyear breakdown of program resources**  
(US\$ millions)

Component	IDB 2010 NI-L1049	IDB 2011 NI-L1052	IDB 2012	CABEI	Other donors*	Total
Rural access roads and trunk system	10.62	16.80	13.55	26.00	11.00	77.97
Institutional strengthening	1.62	3.00	2.25	-	8.00	14.87
Road safety	2.13	4.00	3.00	-	15.00	24.13
Reducing vulnerability to climate change	0.45	1.00	1.00	-	15.00	17.45
Road maintenance	2.00	4.00	4.00	-	-	10.00
Other items and contingencies	3.38	1.20	1.20	-	-	5.78
<b>Total</b>	<b>20.20</b>	<b>30.00</b>	<b>25.00</b>	<b>26.00</b>	<b>49.00</b>	<b>150.20</b>

- 1.13 **Rationale for Bank participation.** Road investment in Nicaragua is a priority of both the government (paragraph 1.7) and the Bank (paragraph 1.5), with a focus on projects that boost national and regional integration and support the growth of the national economy. The program has been designed jointly by MTI and the Bank's project team with a view to maximizing the impact in the sector and making investments more efficient within a strategic planning framework.

### **C. Objectives, components and costs**

- 1.14 **Objective.** The general objective of the program is to make road transport in Nicaragua more efficient in order to stimulate economic activity and contribute to the well-being of the population, while facilitating integration within the country and with the rest of Central America. The specific objectives are: (i) to reduce vehicle operating costs; (ii) to increase travel speeds; (iii) to reduce disruptions to transit; (iv) to reduce accident rates; and (v) to foster conservation of road infrastructure.
- 1.15 **Component 1. Upgrading rural access roads and the trunk network.** MTI will use the financing for this component to award contracts for structural and/or functional improvements to rural access roads and the trunk network, including paving works, structural reinforcement, drainage, geometric improvement, replacement or construction of bridges, and road signage. The projects financed will be part of the MTI investment plan and will be guaranteed by the National Public Investment System (SNIP).
- 1.16 **Component 2. Institutional strengthening of MTI.** This component seeks to pursue and reinforce the MTI strengthening process. MTI will use the funding for this component to award contracts for works and services and acquire goods to improve the planning, management and conservation of road infrastructure at the national and municipal levels. The main areas of intervention will be: (i) improving controls over vehicle weights and dimensions; and (ii) strengthening the MTI Municipal Roads Department (DCM). The first area is further divided into: (a) technical assistance for MTI to help with the design and implementation of an integrated system of weights and dimensions; and (b) construction or improvement

of weight stations. For instance, three possible locations were identified for possible construction or improvement of the first pilot stations (Frontera Guasaule, Frontera Peñas Blancas, and San Benito). The second area of intervention consists in providing technical assistance for DCM administration with a view to establishing the Regional Transport Boards (CRM) in the country's Central and Pacific zones.

- 1.17 **Component 3. Road safety.** With funds from this component MTI will award contracts for works and services and the purchase of goods in support of road safety. Throughout the program, work under this component will be aligned with regional efforts supported by the Bank as part of the Road Safety Initiative for Latin America and the Caribbean. The proceeds of this component will be used to help develop a Road Safety Strategy for 2010-2015, based on lessons learned from the planning and implementation of the 2005-2010 Road Safety Strategy. The funding for this component will also finance the implementation of a project to improve the city of Leon ring road bypass, including construction of 4.7 km of sidewalks and bicycle paths to reduce the high incidence of accidents involving vehicle traffic, pedestrians, and cyclists.
- 1.18 **Component 4. Reducing the road system's vulnerability to climate change.** This component will finance activities to reduce the road system's vulnerability to the effects of climate change. They include measures to strengthen MTI as well as investments in infrastructure works. MTI currently has no methodology for considering the effects of climate change phenomena when planning its investments. For this reason, MTI will use the funding for this component to engage consulting services to map the sites in the network that are most vulnerable to threats such as hurricanes, flooding, landslides and high sea levels. In addition, MTI will contract consulting services to formulate methodological tools for intervention, training and capacity building, especially in its Environmental Management Unit (UGA). These actions will establish institutional conditions so that future road works, which could be financed under subsequent operations of the program, will include measures to deal with the system's vulnerability to climate change.
- 1.19 **Component 5. Road maintenance.** The funding for this component will enable FOMAV to award contracts for works and services conducive to the conservation of the trunk network and rural access roads, as well as to strengthen capacity for maintenance planning, management and execution nationwide. The component will finance periodic and special maintenance interventions relating to paving, patching, resurfacing, stabilization, surface treatment, use of new technologies, and other tasks pertaining to maintenance. The component will also finance studies, technical assistance, training and purchases of equipment or goods for the proposed FOMAV capacity building initiatives. One of the activities to be financed is the patching and resurfacing with asphaltic concrete along a section of trunk road. In addition, three specific capacity building actions were identified, involving support for: (i) automation of administrative processes; (ii) introduction of performance-based maintenance contracts; and (iii) preparing manuals on environmental control, road safety, and occupational hygiene.

**Table 5. Costs of the first operation under the program (NI-L1049)**

<b>Investment category</b>	<b>Cost (US\$)</b>	<b>%</b>
<b>ADMINISTRATION</b>	<b>2,381,000</b>	<b>11.8%</b>
Works supervision	831,000	4.1%
Audits (financial, technical, and socioenvironmental)	530,000	2.6%
Monitoring and evaluation	170,000	0.8%
Pre-investment and design studies	850,000	4.2%
<b>DIRECT COSTS</b>	<b>16,823,000</b>	<b>83.3%</b>
Access roads and trunk network	10,620,000	52.6%
Institutional strengthening	1,620,000	8.0%
Road safety	2,133,000	10.6%
Reducing vulnerability to climate change	450,000	2.2%
Road maintenance	2,000,000	9.9%
<b>CONTINGENCIES</b>	<b>436,000</b>	<b>2.2%</b>
<b>FINANCIAL EXPENSES</b>	<b>560,000</b>	<b>2.8%</b>
Interest	560,000	2.8%
Credit fee		
Inspection and supervision		
<b>PROJECT TOTAL</b>	<b>20,200,000</b>	<b>100 %</b>

- 1.20 Table 5 gives a breakdown of costs for this first operation. In addition to the costs of each component, funds are earmarked for the following areas of support for project execution: (i) US\$831,000 for supervision of the works under MTI's responsibility; (ii) US\$850,000 for preinvestment studies and final design of projects for inclusion in future financing under the program; (iii) US\$530,000 for financial, technical and socioenvironmental audits, (iv) US\$170,000 for monitoring and evaluation, establishment of a baseline, and periodic monitoring of the key outcome indicators; and (v) US\$436,000 as a reserve for contingencies. Interest will be defrayed out of the project financing.
- 1.21 **Selection criteria.** Activities or projects to be financed under the operation will be selected primarily on the basis of their relevance and their socioeconomic evaluation. For institution-building and support activities, relevance will be determined in light of compatibility with the description of the components (paragraphs 1.15, 1.16, 1.17, 1.18, 1.19). For road improvement projects, the benchmark will be that more than 80% of the project costs will relate to paving, structural reinforcement, drainage, geometric improvement, replacement or construction of bridges, and/or road signage. With respect to the socioeconomic evaluation, project eligibility will depend on showing an economic internal rate of return (EIRR) or benefit/cost (B/C) ratios in excess of the thresholds which the Bank, by agreement with the executing agencies, will establish for each operation and which, in any case, will be no lower than 12% for the EIRR. The document entitled "Project Selection Criteria" (IDBDOCS#35310942) contains a fuller description of the procedure for selecting activities or projects for financing.
- 1.22 **General project specifications.** All physical projects to be financed under this first operation must satisfy the following conditions: (i) no financing will be provided

for projects in protected areas or for those that would directly affect areas that are sensitive from an environmental or social perspective, archaeological sites or indigenous communities; (ii) no new construction projects will be financed if they involve mass expropriation or the displacement of people, or that would have other, similar social impacts; (iii) projects must be “stand-alone” from a socioeconomic standpoint (i.e., the benefits justifying each individual project must be independent of other, complementary physical projects); (iv) projects must constitute technical solutions that represent the least initial investment, while exhibiting acceptable economic indicators; (v) projects will be identified in the short- and medium-term plans of MTI and FOMAV, defined in 2010, and will carry the prior approval of the Bank; (vi) projects will carry the endorsement of the National Public Investment System (SNIP); and (vii) if rights-of-way or easements are required, these will be obtained before the works begin.

- 1.23 The analysis conducted by MTI indicates that, for improving trunk roads and rural access roads, foundation reinforcement and surface treatment constitute the technical option with the highest socioeconomic indicators. There are other options with acceptable indicators, such as paving blocks or hydraulic concrete, but the substantial difference in the initial investment cost suggests two recommendations: (i) the benefits of these technologies should be evaluated in greater detail; and (ii) they should be reserved for cases where the advantages are substantial. The program may finance works using other technologies, provided they are technically superior to the alternatives and their socioeconomic evaluation produces clearly higher indicators. In any case, the Bank’s no objection will be required to finance works using other technologies.

**Table 6. Sample of projects**

<b>Component/Project</b>	<b>Cost (US\$)</b>	<b>Observations</b>
<b>Component 1: Improvements to access roads and the trunk network</b>		
Improvement: Las Flores – Guanacaste	2,520,000	50 mm overlay over 17.6 km. <sup>7</sup> EIRR 38%
Improvement to the ring road at Masaya	5,600,000	Completion of the first phase of hot asphaltting over 8 km of 2-lane roadway. EIRR 22%
<b>Component 2: Institutional strengthening of MTI</b>		
Construction and improvement of weigh stations	1,240,000	Construction of two new stations and facilities upgrade for an existing station.
<b>Component 3: Road safety</b>		
Reinforcement of the León bypass	1,833,000	Construction of bicycle paths and sidewalks over 4.7 km. EIRR 26%
<b>Component 5: Road maintenance</b>		
Periodic maintenance Nandaime – Rivas – Peñas Blancas	1,500,000	Patching and overlay on up to 14 km of roadway. EIRR 47%

<sup>7</sup> During preparation of the final engineering designs, the EIRRs will be calculated using the HDM-4, and will be verified upon project completion.

- 1.24 **Project sample.** A sample of projects has been selected as representative of the total, pursuant to the “Multiple Works Program” modality (see Table 6). The MTI projects are part of a subset of priority rehabilitation and improvement projects potentially eligible for financing through the program, within the MTI 2007-2017 Medium-Term Investment Plan. FOMAV has an analysis of the status of the maintainable network which will be used to prioritize periodic maintenance projects, from which its project under this operation will be drawn. The returns shown are reasonable and typical for a project of this kind.

#### **D. Outcome indicators and monitoring**

- 1.25 The key outcomes expected from any road upgrades or improvements include: (i) reduced transport operating costs; (ii) reduced travel times; (iii) fewer traffic disruptions; (iv) fewer traffic accidents; (v) increased asset value of roads; (vi) increase in the number of formal and informal businesses in the area served by the road; and (vii) increased monetary incomes for families in the area served by the road. An indicator has been determined for monitoring each expected outcome. The initial values of each indicator will be determined prior to the intervention in order to establish the baseline and targets. Each operation will include funding to establish a baseline and to measure the indicators periodically.

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

### **A. Financial facility and contractual conditions**

**Table 7. Disbursement schedule (US\$millions)**

<b>Source</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Total</b>
IDB	4.45	11.97	3.80	20.2

- 2.1 Bank financing for the first operation will be structured as an investment loan in the amount of US\$20.2 million, under a concessional lending arrangement, of which 50% would come from the Fund for Special Operations (FSO) and 50% from the Ordinary Capital (OC). The disbursement schedule is shown in Table 7.

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

- 2.2 **Positive environmental impacts.** The program’s characteristics and objectives will produce significant positive environmental impacts. The project will: (i) enhance living conditions for many people by improving accessibility and boosting local economies; (ii) help reduce poverty by giving producers better access to markets; (iii) facilitate and reduce the costs of transport by improving design speed and the technical state of roadways; (iv) contribute to road sustainability through systematic maintenance; and (v) reduce the road system’s vulnerability to risks associated with climate change.
- 2.3 **Negative environmental impacts and mitigation measures.** The program does not call for financing any large-scale projects that would cause significant environmental disruption, or any works in zones that are environmentally highly

sensitive. However, before tendering of any works located in sensitive areas (where they might affect natural habitats, archaeological sites, indigenous communities, or require involuntary resettlement), the borrower will present the respective Environmental and Social Impact Study to the Bank's satisfaction. The Environmental and Social Management Plan (ESMP) includes a table with a general overview of the potential impacts of new road projects and the mitigation measures that will be adopted. The ESMP also includes social and environmental guidelines and procedures for mitigating those impacts. As a special contractual condition, it has been agreed that the executing agencies will ensure that works under the first Bank loan comply with the ESMP, which is part of the Program Operating Manual (paragraph 3.2).

- 2.4 During the construction phase, the anticipated social and environmental impacts will include air quality changes, increased risk of soil instability, changes to the natural landscape, water quality changes induced by occasional residues, disruption of habitat and vegetation, increased noise levels, changes to surface drainage, changes to water quality from earthmoving, and changes associated with human resettlement. Known mitigation measures will be adopted in accordance with national legislation and the Bank's safeguard policies (OP-703, OP-704, OP-710 and OP-765). For maintenance, resurfacing and drainage works the potential impacts are likely to be less complex. The ESMP also contains a table showing the potential environmental impacts and their mitigation measures. The MTI has put the ESMP to public consultation and has published it at its website.
- 2.5 MTI has been slow in implementing the involuntary resettlement program under operation NI-L1035. Although those delays are being resolved pursuant to NI-L1035, the executing agency's management capacity has been identified as a risk factor, and the Bank will monitor the proposed operation's environmental and social impacts very closely.

### **C. Fiduciary risk**

- 2.6 On the basis of the report assessing the institutional capacity for procurement and the Institutional Capacity Assessment System (ICAS), conducted during preparation of this operation, the risk level assigned to the units relating to MTI fiduciary issues is moderate. MTI has experience with execution of projects financed by the Bank, and is currently executing operations 1796/SF-NI, 1530/SF-NI, and 1599/SF-NI, in which procurement processes are subject to prior review by the Bank. As to FOMAV, on the basis of the assessment report, its procurement management risk is rated moderate. As FOMAV has not been an executing agency for operations financed by the Bank, it will be important to provide it with adequate training before the operation begins. On financial management issues, the execution capacity of the executing agencies must be reinforced, primarily with respect to controls. However, the personnel profile suggests that, with adequate resources and coaching support, substantial progress could be achieved.

**D. Other issues and risks**

- 2.7 **Technical and economic feasibility.** The borrower undertakes to commission, at the same time as the project designs are commissioned, a technical audit for approval of the project designs, with such audit being financed out of the proceeds of the loan. Before tenders are called for any of the works under the access roads/trunk network and the road maintenance components, the borrower will be required to present, to the Bank's satisfaction, the updated engineering designs, the detailed budgets, the economic evaluation and the baseline for the respective projects. The project documents will need to include at a minimum: topographical, geographical, hydrological, hydraulic, and structural studies as well as final traffic reports, economic feasibility studies and calculations of work quantities and volumes, a unit price analysis, and execution schedule. For goods and consulting services, the documents must contain the updated budgets and execution schedules. The foregoing will be included in the Program Operating Manual (paragraph 3.2).
- 2.8 **Execution risks.** In technical terms, the works should present no particular degree of difficulty, as construction firms are available to carry out the works. As to the technical and operational sustainability of the works, MTI and FOMAV have given priority to conservation of the road network for which they are responsible. There is a risk that some other donors that have expressed an interest in participating in the program (paragraph 1.11) may decide not to do so; this would diminish the overall impact of the program, but would not interfere with execution or the attainment of its objectives, as these have been designed under the "Multiple Works Program" modality (paragraph 1.12).
- 2.9 **Sustainability of investments.** FOMAV will accept responsibility for maintaining the road works financed under the loan, and will send the borrower a report on the status of those works during the five years following completion of each works project. That information will be compiled by the borrower and submitted annually to the Bank, within the first three months of each calendar year, together with the annual maintenance plan prepared by FOMAV.

**III. IMPLEMENTATION AND MANAGEMENT PLAN**

- 3.1 **Borrower and executing agency.** The borrower will be the Republic of Nicaragua and the executing agencies will be the MTI (components 1, 2, 3 and 4) and FOMAV (component 5). Within MTI, the IDP Project Coordination Unit (PCU), under the Roads and Highways Department (DGV), will be responsible for coordinating project execution. DGV's general role involves planning, programming, construction, contracting, supervision and improvement of the highways and bridges that make up the road system. DGV will have the support of various MTI administrative units and technical divisions involved in implementing the operation. Within FOMAV, the Executive Director's Office will be responsible for coordinating project execution. That office will have the support of the Technical Division, the Financial Administration Division, the Legal Advisory Service, and the Procurement Division.



- 3.2 **Operating manual.** The Program Operating Manual will include the compendium of agreements on operational issues such as project selection and evaluation criteria (paragraph 1.21), use of HDM-4 for ex ante and ex post evaluations, the works specifications (paragraph 1.23), the results indicators and the arrangements for monitoring and evaluating the program (paragraph 1.25), the ESMP (paragraph 2.3) and the technical and environmental audits (paragraph 3.6). **Approval and entry into force of the Program Operating Manual, with the Bank' no objection, by the borrower and the executing agencies** will be a condition precedent to the first disbursement of loan funds.
- 3.3 **Financial management.** Financial and accounting management of the project will be handled by the financial and accounting units of the two executing agencies. Both units were evaluated by the financial service department in the Bank's Country Office in Nicaragua and, while some weaknesses were detected, it was found that: (i) in the case of MTI, it is using the project administration module of the national financial administration system (SIGFA-PRO), and (ii) in the case of FOMAV, it uses an independent system, but in the wake of the assessment it has agreed to migrate to SIGFA-PRO for financial administration of the operation. The fourth quarter of 2010 has been set as the tentative target for implementing the system. With respect to the control subcomponents, the Comptroller General's Office is not considered eligible for auditing operations financed by the Bank, for which reason the country system will not be used for this subcomponent in Nicaragua. The internal control subcomponent is used, as the executing agencies are audited by their respective internal audit units. However, in both cases these internal audit units were found to be weak. As a result of the assessment, measures were agreed for strengthening these units so that they can provide adequate service. To this end, PDP/CNI will help with monitoring and implementation of strengthening plans for both institutions.

**Table 8. Procurement methods, by amount and review mechanism**

<b>Expenditure category</b>	<b>Amount (US\$1.000)</b>	<b>Procurement method</b>	<b>IDB review</b>
Works	≥1.500	ICB	Ex ante for all processes
	<1.500 ≥ 150	NCB	Ex ante for all processes
	< 150	S	Ex ante for all processes except the first three
Goods	≥150	ICB	Ex ante for all processes
	≤150 > 25	NCB	Ex ante for all processes
	≤ 25	S	Ex ante for all processes
Non-consulting services	>150	ICB	Ex ante for all processes
	≤150 > 25	NCB	Ex ante for all processes
	≤ 25	S	Ex ante for all processes except the first three
Consulting firms	>200	ISL	Ex ante for all processes
	<200	NSL	
Individual consultants	See Section V Policy GN-2350-7		Ex ante for all processes

ICB: International Competitive Bidding; NCB: National Competitive Bidding; S: Shopping; ISL: International Shortlist; NSL: National Shortlist

- 3.4 **Procurement.** The procurement of goods, works, and services under the loan will be carried out by the MTI Procurement Unit and the FOMAV Procurement Division for the components under their respective responsibility, in accordance with Bank policies (documents GN-2349-7 and GN-2350-7). Procurement and contracting processes will be reviewed by the Bank as indicated in Table 8.
- 3.5 **Monitoring.** During project execution the executing agencies will present to the Bank semiannual progress reports, indicating progress under each component and for the program as a whole, including the agreed indicators (Results Matrix). The reports will also include: (i) a description of activities carried out; (ii) updated timetables for physical execution and disbursements; (iii) achievements against the agreed execution indicators; (iv) a work program for the coming six months; (v) a summary of the program's financial execution status and a forecast of the flow of funds for the next six months; (vi) identification of possible events that could jeopardize program execution. In addition, within 90 days after the last disbursement, a final program report will be submitted, including at least: (i) the results of financial execution by component; (ii) fulfillment of the established targets, in accordance with the agreed results indicators; and (iii) compliance with contractual commitments.
- 3.6 **External audit.** During project execution, the borrower will present annually to the Bank, within 120 days of the close of the fiscal year, the financial statements for the project and those for FOMAV, duly audited by an independent audit firm acceptable to the Bank. The costs of the audit will be charged to the loan. For purposes of reducing transaction costs, it is recommended that the same firm should conduct both audits. To this end PDP/CNI will work with the executing agencies to prepare the terms of reference (TORs). To strengthen the processes of designing,

executing and supervising the works and complying with the Bank's environmental and safeguards policy, technical and environmental audits of the project will be performed at least every six months by independent specialists acceptable to the Bank, and contacted in accordance with TORs previously agreed with the Bank. The cost of these audits will be a charge to the loan.

- 3.7 **Other special contractual conditions.** Because FOMAV is an autonomous state entity, **signature and entry into force of an agreement, cleared in advance with the Bank, between the borrower and FOMAV for executing the road maintenance component** will be a contractual condition precedent to the first disbursement under the loan.

**Banco Interamericano de Desarrollo (BID)**

# ANEXO CONFIDENCIAL

# CONFIDENTIAL ANNEX

[INE-TSP@iadb.org](mailto:INE-TSP@iadb.org)

## PROJECT RESULTS FRAMEWORK

Results Framework Matrix of Indicators	
<b>Purpose of the program</b>	The Transport Sector Support Program is a structured set of multiyear investments intended to: (i) stimulate economic activity and the well-being of the population in the areas served by the projects; and (ii) contribute to integration within the country and with the rest of Central America.

Program results indicators				
Outcome indicators	Baseline 2010	Target 2013	Comments	
Number of formal and informal businesses of all kinds in the areas served by the rehabilitated or maintained roads.	_____ businesses in the project zone _____ (Values to be determined when the baseline is established)	Increase of at least __% in the number of businesses in each project's zone. (*)	Determined through direct field research by consultants or specialized entities.	The indicator reflects the impact of improved transportation on economic activity in the project zones.
Monetary incomes of families living in the area served by the rehabilitated or maintained roads.	Average family income _____ US\$/month in the project zone _____ (Values to be determined when the baseline is established)	Increase of at least __% in average family incomes in each project zone. (*)	Determined through direct field research by consultants or specialized entities.	The indicator reflects the impact of improved transportation on families in the project zones.

**NOTE:** These indicators are included as a way of measuring the impact of road rehabilitation, improvement and maintenance projects. They are not directly linked to project objectives, but indicate the contribution of the investments to broader objectives in the Country Strategy.

(\*) percentage increases to be specified during construction of the baseline.

Results Framework Matrix of Indicators	
<b>Project objective</b>	To make road transport more efficient by: (i) reducing vehicle operating costs; (ii) increasing travel speeds; (iii) reducing disruptions to transit; (iv) reducing accident rates; and (v) fostering conservation of road.

Indicators of overall project outcomes Indicators of greater transport efficiency				
Outcome indicators	Baseline 2010	Target 2013	Comments	
Cost of operating a 10-ton truck over any of the roads rehabilitated or maintained.	US\$ _____ in project _____ ( Values to be determined when the baseline is established )	Reduction of at least __% compared with baseline for each project. (*)	Determined through direct field measurements and calculations performed by consultants with the help of the HDM 4 model.	Indicators needed to confirm that the financing has served to guarantee permanent, continuous, competitive and safe transportation for goods and services over the sections upgraded
Travel time for a vehicle traveling over any of the roads rehabilitated or maintained.	____ hr ____ min in project _____ ( Values to be determined when the baseline is established )	Reduction of at least __% compared with baseline for each project. (*)	Determined through direct field measurements performed by consultants.	Indicators needed to confirm that the financing has served to guarantee permanent, continuous, competitive and safe transportation for goods and services over the sections upgraded
Traffic interruptions in one year on any of the roads rehabilitated or maintained.	____ events in project _____ ( Values to be determined when the baseline is established )	Events attributable solely to force majeure and lasting no more than 24 hours for each project	Determined by MTI and FOMAV on the basis of periodic operating reports	
Accidents of all kinds (victims, no victims, involving a single vehicle, more than one vehicle, motorized vehicles, cyclists, pedestrians) in one year on upgraded sections.	____ accidents in project _____ ( Values to be determined when the baseline is established )	Reduction of at least __% compared with baseline for each project. (*)	Determined through direct research by consultants with different entities.	Indicators needed to confirm that the financing has served to guarantee permanent, continuous, competitive and safe transportation for goods and services over the sections upgraded

Overall project outcome indicators Indicators of greater transport efficiency (Cont.)				
Results indicators	Baseline 2010	Target 2013	Comments	
Asset value of roads rehabilitated or maintained	US\$ _____ for project _____ ( Values to be determined when the baseline is established )	Reduction of at least __% compared with baseline for each project. (*)	Determined through direct research by consultants.	

**NOTE:** Given the nature and number of the works to be financed under the project, and their programming, it is difficult to establish significant intermediate indicators. However, the trend of the indicators will be monitored and reported annually, as the works are gradually completed. The indicators will be determined for each project, and individual and average values will be reported.

(\*) percentage increases to be determined exactly during technical review of the projects

Results Framework Matrix of Indicators		
<b>Specific objectives by component</b>	Component 1: improvement of rural access roads and the trunk network	(i) rehabilitation of rural access roads. (ii) improvement of the trunk network.

Specific outcome indicators by component (cumulative expected annual outcomes)						
Component 1	2010	2011	2012	2013	Meta	Structural/functional improvement of rural access roads and the trunk network
Trunk network improvement – reinforcement of the Las Flores – Guanacaste section	n.a.	n.a.	10 km	18 km	Improvement of 26.0 km of trunk road	Achievement of these expected outcomes will be determined on the basis of periodic reports from MTI and FOMAV, and will be verified in the field by the Bank. Link to the Country Strategy
Trunk network improvement-improvement of the Masaya ring road	n.a.	n.a.	4 km	8 km		

**NOTE:** These specific outcome indicators will help determine indicators for the 2008-2012 contribution to the Country Strategy, Strategic Area II - B), improvement of the existing road network (extension of the paved road network).

n.a. Not applicable



Results Framework Matrix of Indicators		
Specific objectives by component	Component 2: Institutional strengthening of MTI	(i) support to the weight control function (ii) support to the municipal roads division

Specific outcome indicators by component (cumulative expected annual outcomes)						
Component 2	2010	2011	2012	2013	Meta	Strengthening for planning, management and conservation of national and municipal road infrastructure
Support for the weight control function– construction and improvement of weigh stations	n.a.	n.a.	1 weigh station improved and operating + 2 new weigh stations built and operating	1 weigh station improved and operating + 2 new weigh stations built and operating	1 weigh station improved and operating + 2 new weigh stations built and operating	Achievement of these expected outcomes will be determined on the basis of periodic reports presented by MTI and verified in the field by the Bank.
Support to the Municipal Roads Division - creation of regional transport boards	n.a.	1 regional transport board created	2 regional transport boards created and operating	3 regional transport boards created and operating	3 regional transport boards created and operating	

**NOTES:** These specific outcome indicators will help determine indicators for the contribution to the 2008-2012 Country Strategy, Strategic Area II - B), improvement of the existing road network (extension of the paved road network).

There are currently 8 weigh stations operating in Nicaragua: El Espino (Northern border post, El Espino, Km. 238); Paso Caballos (Km. 145, Chinandega-Corinto Highway); Mateare (Km. 20.7 new highway to León); Chilamatillo (Km. 32 North Highway); Lóvago (Km. 161.5 San Benito – Rama highway); Sébaco (Km. 106 Sébaco – San Isidro Highway); Peñas Blancas (border with Costa Rica); Ocotal (Km 227 Chalahuina – Las Manos highway/border with Honduras). The last two use a mobile scale.

The regional transport boards indicated are new ones to be created on the basis of experience with others already operating in Nicaragua.

n.a. Not applicable

<b>Results Framework Matrix of Indicators</b>		
<b>Specific objectives by component</b>	Component 3: Road safety	(i) Road safety management (ii) accident reduction works

<b>Specific outcome indicators by component (cumulative expected annual outcomes)</b>						
<b>Component 3</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Meta</b>	<b>Strengthening of MTI' capacity to manage road safety and specific works for the elimination or improvement of frequent-accident points</b>
Road safety management-implementation of measures called for in Nicaragua's road safety strategy	n.a.	2 specialized high level consulting studies performed	4 specialized high level consulting studies performed	4 specialized high level consulting studies performed	4 specialized high level consulting studies performed	Achievement of these expected outcomes will be determined on the basis of periodic reports presented by MTI and verified in the field by the Bank.
Accident reduction works—improvements to the León bypass	n.a.	n.a.	Construction of bicycle paths and sidewalks over 4.7 km	Construction of bicycle paths and sidewalks over 4.7 km	Construction of bicycle paths and sidewalks over 4.7 km	

**NOTE:** These specific outcome indicators will help determine indicators for the contribution to the 2008-2012 Country Strategy, Strategic Area II-B), improvement of the existing road network (extension of the paved road network).

n.a. Not applicable

Results Framework Matrix of Indicators						
Specific objectives by component	Component 4: Reducing the road network's vulnerability to climate change		(i) management of climate change impact on the road network (ii) works to reduce the road network's vulnerability to climate change (*)			

Specific outcome indicators by component (cumulative expected annual outcomes)						
Component 4	2010	2011	2012	2013	Meta	Strengthening of MTI's capacity to manage the effects of climate change and works to reduce the vulnerability of the road network at specific points
Managing the effects of climate change - mapping of sites of greatest vulnerability in the road network	n.a.	n.a.	Specialized consulting study performed	Specialized consulting study performed	Specialized consulting study performed	Achievement of these expected outcomes will be determined on the basis of periodic reports presented by MTI and verified in the field by the Bank.
Works to reduce the road network's vulnerability	n.a.	(*)	(*)	(*)	(*)	

**NOTE:** These specific outcome indicators will help determine indicators for the contribution to the 2008-2012 Country Strategy, Strategic Area II-B), improvement of the existing road network (extension of the paved road network).

n.a. Not applicable

(\*) definition pending signature of an agreement with the Nordic Development Fund to finance works and supervision

Results Framework Matrix of Indicators						
Specific objectives by component	Component 5: road maintenance by FOMAV		(i) strengthening of FOMAV. (ii) conservation of the top network and rural access roads.			
Specific outcome indicators by component (cumulative expected annual outcomes)						
Component 5	2010	2011	2012	2013	Meta	Strengthening of FOMAV’s capacity to plan, manage and execute road maintenance at the national level, and periodic maintenance works
Strengthening of FOMAV – consulting services to automate processes, performance-based contracts and development of manuals	n.a	3 consulting studies performed	3 consulting studies performed	3 consulting studies performed	Strengthening of management and periodic maintenance over 22 km of trunk Highway	Achievement of these expected outcomes will be determined on the basis of periodic reports presented by FOMAV and verified in the field by the Bank.
Conservation of the trunk network and rural access roads– “periodic maintenance work on the Nandaime – Rivas – Peñas Blancas section”	n.a.	n.a.	22 km	22 km		

**NOTE:** These specific outcome indicators will help determine indicators for the contribution to the 2008-2012 Country Strategy, Strategic Area II-B), improvement of the existing road network (extension of the paved road network).

n.a. Not applicable

## PROCUREMENT PLAN

**PERIOD INCLUDED IN THIS PROCUREMENT PLAN: FROM JANUARY 2011 TO DECEMBER 2012**

Ref. No. <sup>1</sup>	Description and type of the procurement contract	Estimated contract cost (US\$000)	Procurement method <sup>2</sup>	Review (ex ante or ex-post)	Source of financing and percentage		Pre-qualifi- cation <sup>3</sup> (Yes/No)	Estimated dates		Status <sup>4</sup> (pending, in process, awarded, cancelled)	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
1. GOODS											
	In principle, there will be no procurement of goods. Some goods, to be determined, may be supplied as part of the specialized consulting contracts										
2. WORKS											
2.1	Reinforcement of the Las Flores - Guanacaste section Patching, resurfacing, drainage and safety works.	2,500	ICB	Ex ante	100%		No	Jul-11	Oct-12	Pending	
2.2	Improvement of the Masaya ring road	5,600	ICB	Ex ante	100%		No	Jul-11	Jun-13	Pending	

<sup>1</sup> A number of similar individual contracts that are to be executed in different places or at different times may be grouped together under a single heading, with an explanation in the comments column indicating the average individual contract amount and the period during which they would be executed. For example, an education project that includes school construction might include an item "school construction", a total estimated amount of US\$20 million, and an explanation in the comments column such as: "This covers some 200 contracts for school construction averaging US\$100,000 each, to be awarded individually by participating municipal governments over a three-year period between January 2006 and December 2008."

<sup>2</sup> **Goods and Works:** **ICB/LPI:** International competitive bidding; **LIB/LIL:** limited international bidding; **NCB/LPN:** national competitive bidding; **PC/CP:** price comparison; **DC/CD:** direct contracting; **FA/AD:** force account; **PSA/CAE:** Procurement through Specialized Agencies; **PA:** Procurement Agents; **IA:** Inspection Agents; **PLFI/CPIF:** Procurement in Loans to Financial Intermediaries; **BOO/BOT/BOOT [CPO/COY/CPOT]:** Build, Own, Operate/Build, Operate, Transfer/Build, Own, Operate, Transfer; **PBP/CBD:** Performance-Based Procurement; **PLGB/CPGB:** Procurement under Loans Guaranteed by the Bank; **PCP/PSC:** Community participation procurement. **Consulting Firms:** **QCBS/SBCC:** Quality- and Cost-Based Selection **QBS/SBC:** Quality-Based Selection **FBS/SBPF:** Selection under a Fixed Budget; **LCS/SBMC:** Least-Cost Selection; **CQS/SCC:** Selection based on the Consultants' Qualifications; **SSS:** Single-Source Selection. **Individual Consultants:** **NICQ/CCIN:** National Individual Consultant selection based on Qualifications; **IICC/CCII:** International Individual Consultant selection based on Qualifications

<sup>3</sup> In the case of New Policies it applies only for Goods and Works. In the case of Old Procurement Policies it applies for Goods, Works and Consulting Services.

<sup>4</sup> This column "Status" should be used for retroactive procurement and for procurement plan updates.

Ref. No. <sup>1</sup>	Description and type of the procurement contract	Estimated contract cost (US\$000)	Procurement method <sup>2</sup>	Review (ex ante or ex-post)	Source of financing and percentage		Pre-qualification <sup>3</sup> (Yes/No)	Estimated dates		Status <sup>4</sup> (pending, in process, awarded, cancelled)	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
2.3	Paving of four lanes and construction of the drainage system Construction and improvement of weigh stations  Design and construction of three weigh stations on the national road network	1,240	NCB	Ex ante	100%		No	Jul-11	Oct-12	Pending	3 simultaneous calls for tenders
2.4	Improvement of the León bypass Construction of bicycle paths and sidewalks.	1,850	ICB	Ex ante	100%		No	Jun-11	Aug-12	Pending	
2.5	Works to reduce the vulnerability of the road network (protection, drainage, stabilization)	4,000	NCB	Ex ante	100%		No	Mar-12	Mar-13	Pending	Various simultaneous calls for tenders. Definition pending signature of agreement with the NDF for financing the works.
2.6	Periodic maintenance on the Nandaime-Rivas-Peñas Blancas section	3,200	ICB	Ex ante	100%		No	Jul-11	Oct-12	Pending	
<b>3. NONCONSULTING SERVICES</b>											
3.1	Supervision of reinforcement work on the Las Flores - Guanacaste section	150	QCBS	Ex ante	100%		No	Jun-11	Jul-13	Pending	
3.2	Supervision of improvement works on the Masaya ring road	340	QCBS	Ex ante	100%		No	Jun-11	Jul-13	Pending	

Ref. No. <sup>1</sup>	Description and type of the procurement contract	Estimated contract cost (US\$000)	Procurement method <sup>2</sup>	Review (ex ante or ex-post)	Source of financing and percentage		Pre-qualification <sup>3</sup> (Yes/No)	Estimated dates		Status <sup>4</sup> (pending, in process, awarded, cancelled)	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
3.3	Supervision of construction and improvement works for weigh stations	90	CQS	Ex ante	100%		No	Jun-11	Nov-12	Pending	3 simultaneous calls for tenders
3.4	Supervision of improvement works on the León bypass	110	QCBS	Ex ante	100%		No	Jun-11	Sep-12	Pending	
3.5	Supervision of works to reduce the vulnerability of the road network	320	CQS	Ex ante	100%		No	Mar-12	Apr-13	Pending	Various simultaneous calls for tenders. Definition pending signature of agreement with the NDF for financing the works.
<b>4. CONSULTING SERVICES</b>											
4.1	Independent technical audit of the program Technical review of engineering designs and support for works of supervision	220	QCBS	Ex ante	100%		No	Jan-11	Jun-13	Pending	Retainer-type services
4.2	Independent environmental audit of the program Verification of implementation of the program's social and environmental strategy	60	CQS	Ex ante	100%		No	Jan-11	Jun-13	Pending	Retainer-type services
4.3	Independent financial audit of the program	80	QCBS	Ex ante	100%		No	May-11	Apr-11	Pending	
4.4	Program baseline- A Establishment of base values for overall outcome indicators for the program.	30	CQS	Ex ante	100%		No	May-11	Jun-11	Pending	

Ref. No. <sup>1</sup>	Description and type of the procurement contract	Estimated contract cost (US\$000)	Procurement method <sup>2</sup>	Review (ex ante or ex-post)	Source of financing and percentage		Pre-qualification <sup>3</sup> (Yes/No)	Estimated dates		Status <sup>4</sup> (pending, in process, awarded, cancelled)	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
4.5	Program baseline- B  Establishment of base values for socioeconomic impact indicators for the program.	90	CQS	Ex ante	100%		No	May-11	Jun-11	Pending	Contacting of a specialized entity
4.6	Monitoring of outcome indicators Update of values of the key program outcome indicators	20	CQS	Ex ante	100%		No	Sep-12	Dec-12	Pending	
4.7	Midterm program evaluation Analysis of achievement of program objectives.	20	CQS	Ex ante	100%		No	Nov-12	Mar-13	Pending	
4.8	Preinvestment studies and engineering designs for road works  Studies for works to be financed in future stages of the program.	850	QCBS	Ex ante	100%		No	May-11	Dec-11	Pending	3 simultaneous calls for tenders
4.9	Improvements to the vehicle weight and size control system High-level consulting services for reorganizing the vehicle weight and size control system.	30	CQS	Ex ante	100%		No	Mar-11	Jul-11	Pending	
4.10	Design of weigh stations Development of guidelines for the final design of weigh stations	50	CQS	Ex ante	100%		No	Mar-11	Jul-11	Pending	



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					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
4.11	Strengthening of the Municipal Roads Division  Professional services to support creation and operation of the regional transport boards	100	CQS	Ex ante	100%		No	Mar-11	Dec-12	Pending	3 simultaneous contracts
4.12	Implementation of the 2010-2015 Road Safety Strategy High-level consulting services for the first phase of the strategy.	150	CQS	Ex ante	100%		No	Mar-11	Nov-11	Pending	2 simultaneous contracts
4.13	Implementation of the 2010-2015 Road Safety Strategy High-level consulting services for the second phase of the strategy.	150	CQS	Ex ante	100%		No	Mar-12	Nov-12	Pending	2 simultaneous contracts
4.14	Mapping of vulnerable points in the road network Identification of points vulnerable to natural phenomena, with proposed engineering solutions and budget.	450	QCBS	Ex ante	100%		No	Apr-11	Feb-12	Pending	
4.15	Support for automation of FOMAV processes Consulting services for installation of a management system.	280	QCBS	Ex ante	100%		No	Jan-11	Nov-11	Pending	
4.16	Support for development of performance-based maintenance contracts in FOMAV	80	CQS	Ex ante	100%		No	Apr-11	Nov-11	Pending	2 simultaneous contracts

Ref. No. <sup>1</sup>	Description and type of the procurement contract	Estimated contract cost (US\$000)	Procurement method <sup>2</sup>	Review (ex ante or ex-post)	Source of financing and percentage		Pre- qualifi- cation <sup>3</sup> (Yes/No)	Estimated dates		Status <sup>4</sup> (pending, in process, awarded, cancelled)	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
	High-level consulting services to prepare contract documents and to select maintenance circuits.										
4.17	Preparation of safety, hygiene and environmental manuals Consulting services to prepare procedural manuals.	60	CQS	Ex ante	100%		No	Jun-11	Nov-11	Pending	3 simultaneous contracts