Project Information Document/
Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 26-Aug-2016 | Report No: PIDISDSC19051
### BASIC INFORMATION

#### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
<th>Project Name</th>
</tr>
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<tbody>
<tr>
<td>Nicaragua</td>
<td>P160359</td>
<td></td>
<td>Rural and Urban Access Improvement Project (P160359)</td>
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<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
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<tr>
<td>LATIN AMERICA AND CARIBBEAN</td>
<td>Jan 09, 2017</td>
<td>Mar 31, 2017</td>
<td>Transport &amp; ICT</td>
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<table>
<thead>
<tr>
<th>Lending Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
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<tbody>
<tr>
<td>Investment Project Financing</td>
<td>Republic of Nicaragua</td>
<td>Ministerio de Transporte e Infraestructura (Ministry of Transport and Infrastructure), Road Maintenance Fund (FOMAV)</td>
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#### Financing (in USD Million)

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount</th>
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<tr>
<td>International Development Association (IDA)</td>
<td>80.00</td>
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<tr>
<td><strong>Total Project Cost</strong></td>
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<table>
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<tr>
<th>Environmental Assessment Category</th>
<th>Concept Review Decision</th>
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<tbody>
<tr>
<td>B-Partial Assessment</td>
<td>Track I- The review did authorize the preparation to continue</td>
</tr>
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Other Decision (as needed)

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#### B. Introduction and Context

**Country Context**

*Nicaragua remains one of the Latin American and the Caribbean region’s least developed countries, but has had a strong economic growth.* With per capital gross national income of US$1,800, Nicaragua’s annual economic growth has averaged 4.8 percent in the last six years. In 2014, real gross domestic product (GDP) increased by 4.7 percent. A key engine of this economic growth has been growth in the manufacturing industry (mainly food products and textiles), although construction, mining, fisheries, and general commerce have all been expanding since 2010. Agricultural production experienced a slight decrease stemming from adverse weather conditions causing drought, which contributed to a poor export performance. Looking forward, agriculture is expected to be bolstered by increased production of coffee from 2017 as output recovers from disease and drought and private consumption is expected to
recover, driving a sustained expansion in agricultural and dairy/livestock exports. Economic growth is estimated to average 4.4 percent between 2016 and 2018, reflecting public investment projects and public-sector wage rises ahead of the presidential election in November 2016 and municipal polls in 2017.¹

**While poverty levels have declined, significant challenges remain with respect to boosting shared prosperity.** The second half of the 2000s brought a notable reduction in poverty and inequality. In contrast to the 2001-2005 period, in which poverty essentially stayed constant at 48 percent, the country saw a significant reduction in the general poverty in the following years dropping to 42.5 percent by 2009 and further reaching a national rate of 29.6 percent by 2014, according to the 2014 Standard of Living Survey by the National Development Information Institute. Meanwhile, in the same period extreme poverty dropped 6 percent, from 14.6 percent in 2009 to 8.3 in 2014. Despite progress made, challenges remain on poverty reduction and the enhancement of shared prosperity given that most of the poor live in rural areas and in remote communities where access to basic services is still constrained by limited infrastructure, including rural roads, notwithstanding their economic potential.

**Nicaragua’s socio-economic development has been negatively affected by natural disasters, climatic conditions and epidemics.** The country’s geographic location makes it vulnerable to climate-related phenomena such as droughts, hurricanes, El Niño-Southern Oscillation and its related events, including floods and landslides, along with geological events (e.g., earthquakes and volcanic eruptions). In the last six years alone, Nicaragua has witnessed the effects of five highly destructive tropical storms and hurricanes, which caused significant social suffering and devastating economic and financial losses. Basic social infrastructure has been the most affected, including the transport system. The 2001 droughts caused a loss of 2.15 percent to GDP; the 2007 Hurricane Felix was responsible for 14.4 percent GDP loss; while heavy rains in 2007 in the northwestern region and the 2011 Tropical Depression 12E, wiped out 3 and 6.8 percent of GDP respectively. While precise GDP losses for the 2009 Hurricane Ida are not available, they were likely to be the most significant. These events contributed to large fiscal deficits and debt accumulations requiring Nicaragua to restructure its public debt in 2007. Severe budget constraints, at the same time, have limited Nicaragua’s ability to finance adaptation and mitigation activities. Efforts to address this challenge are being made at the national level through the National System for Prevention, Mitigation and Attention to Disasters Executive Secretariat (SINAPRED), and are also gradually being integrated into policy and administrative actions in Ministries using SINAPRED data in their planning, and with increased coordination at regional levels.

**Sectoral and Institutional Context**

**Nicaragua relies on roads and waterways as the main modes, with roads carrying 55.08 percent of the total freight traffic and waterways 44.66 percent as of 2014.** Waterways, including river, lake and coastal maritime shipping, are important for moving people and goods, particularly in the Caribbean coast areas where land transport is underdeveloped. Nicaragua has five international seaports on the Caribbean and Pacific coasts, one river port (*El Rama*), which is vital for maritime freight traffic between the Pacific and Caribbean coasts, and seven lake ports, six of which on Lake Nicaragua and one on Lake Managua. All ports are under the jurisdiction of National Port Authority. The Pan-American Highway crosses the country from north to south and is the main road link to access seaports on the Atlantic coast of the isthmus, principally Puerto Cortés in Honduras and Puerto Limón in Costa Rica. As paved roads linking the Pacific and the Atlantic coasts are still lacking, most of the country’s agricultural exports are shipped through these ports at a significant cost. The domestic air transport system with 16 airports is in an underdeveloped stage. The main international airport, Managua International Airport, handles most air traffic. The railway system had ceased to exist. In terms of freight transport at the national level, the annual volume is estimated at 13 million tons, and is expected to [1] Economist Intelligence Unit (2016) Country Report: Nicaragua, generated on July 5.
increase 2.8 times by 2033. Given that domestic consumption is concentrated in Managua, the smooth flow of freight through the city should be promoted. With a Logistics Performance Index of 2.53, Nicaragua ranks second to last among the Central American countries and 102nd out of 160 countries worldwide. The main logistics challenges stem from the high transportation costs, limited capacity of ports, reliance on ports in neighboring countries, and long customs clearance waiting times.

**While the road infrastructure quality has improved in recent years, there remain deficiencies that restrict mobility and network connectivity.** Nicaragua’s current road network totals 24,137 km, which is an increase from 22,111 km classified in 2010. With the introduction of programs for rural road improvements, and the completion of some key transit routes, the infrastructure quality has improved over recent years reflected in a 10 percentage point gain in perceptions as measured by the Global Competitiveness Index. Since 2010, the size of the paved network increased from 2,814 km to 3,653 km and the share of population with an access to a paved road increased from 28 to 38 percent. However, the size of the paved roads as a share of the whole road network still remains quite low at only 15 percent, of which 28 percent is in fair or poor condition (based on 2014 surface condition surveys). This puts Nicaragua behind its Central American neighbors in terms of overall road infrastructure quality. The road sector is also challenged by an increasing maintenance burden in the face of a static and inadequate cost recovery base and increasingly frequent natural disasters that cause significant damages to road and bridge infrastructure. The Ministry of Transport and Infrastructure (MTI), supported under the ongoing World Bank-financed roads project, has developed a Comprehensive Productive Roads Program with the aim of optimizing road infrastructure investments in the productive zones based on multi-criteria analysis to prioritize productive roads projects based on the strategic, social, economic, technical and environmental factors.

**The State is the owner of the road infrastructure.** The administrator function lies with the MTI, which has a number of directorates in charge of different aspects of planning and implementation of projects. MTI also plays the manager role in the provision of rehabilitation, improvements, upgrades and new constructions. The Road Maintenance Fund (FOMAV) established in 2000 is in charge of routine and periodic maintenance of the main national road network. Further, as per Article 7 of Law No. 706 dated October 8, 2009, FOMAV signs an agreement with the Asociación de Municipios de Nicaragua (AMUNIC, Association of Municipalities of Nicaragua) for the maintenance of municipal rural roads on an annual basis. The cost of maintenance of municipal roads takes up 20 percent of FOMAV’s revenues. FOMAV’s main source of financing is the fuel levy (diesel and petrol), charged at some 16 cents to the dollar. The supplier role is undertaken by a variety of actors including private contractors, micro-enterprises (for routine maintenance of the main road network), Community Modules for Adoquines (MCAs), and force account operations by the regional construction corporation (COERCO).

**Nicaragua also faces a number of challenges in road safety, especially with the rising level of motorization.** Over the period of 2007-2012, the number of road accidents increased by almost 27 percent, and the number of road accident fatalities by 30 percent. In 2012, there were 679 fatalities registered officially on Nicaraguan roads, a rate of 13 deaths per 10,000 motor vehicles, which is about 25 times greater than the rate in Sweden and United Kingdom. Per population of 100,000, this is an annual rate of about 11 fatalities, which is more than twice the death rate of 5 in the safest countries in the world. Over the period of 2007-2012, a total of 3,500 people died in the accidents on Nicaraguan roads and over 30,000 were injured. Motorcycles account for the largest share of road accident fatalities (30 percent) and injuries (45 percent). Considering that the motorization level increased during the same period by 32 percent, the situation is expected to further deteriorate if serious measures are not taken. To address this, the Government of Nicaragua has launched several initiatives to achieve road safety objectives defined in the new National Road Safety Strategy for 2013-2018 of reducing road traffic fatalities by 20 percent.

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2 This data from the traffic police includes deaths that occurred on site, and does not capture the deaths that may have accrued in post-crash hospital care.
Relationship to CPF

*The proposed Project is fully aligned with the World Bank Group (WBG) Country Partnership Strategy (CPS) for the period of FY2013-2017 for Nicaragua.*[^3] It contributes to both key strategic areas of the CPS: (i) raising welfare by improving access to quality basic services; and (ii) raising incomes by enhancing productivity, competitiveness and diversification. In support of the first strategic area, the Project seeks to improve road infrastructure to facilitate access to basic services for the rural poor, especially during the rainy season. As part of the second strategic area, the CPS notes the success of the MCA model for rural road construction, which has been an effective job creation instrument for vulnerable communities, including women, generating over 9,000 short-term jobs to date (as reported by the 2015 CPS Performance and Learning Review). The proposed Project will build on the lessons of previous World Bank engagement to continue building on the success of this model and convert the MCAs for road construction into micro-enterprises for maintenance to provide longer-term employment opportunities. The CPS also identifies among priorities the need to improve the condition of the road network, with an emphasis on strengthening management and sustainability of road assets, implementing more climate resilience measures, and ensuring greater transparency in the selection of road segments.

*In addition, the proposed Project will contribute to the transversal theme on gender defined in the CPS.* Specifically, the Project will continue enhancing women’s empowerment and employment opportunities in the rural road construction works through the MCA model developed under previous transport operations. Moreover, the proposed Project will build on the recommendations made by the recently completed gender study on Road to Agency funded under the gender umbrella trust fund in order to further enhance women’s participation in the rural road works. The study’s findings have been disseminated to the counterparts in Nicaragua, namely MTI and the Ministry of Family, in September 2015. As a result, MTI has agreed to incorporate the study’s recommendations in the proposed Project, specifically focusing on the following issues: (i) addressing removal of barriers to even greater participation of women in the rural road works (such as unpreparedness, childcare constraints, lack of information, etc.); (ii) diversifying tasks for women’s agency leaving options open to women’s choice, accompanied by proper technical and gender-sensitization training; and (iii) enhancing long-term job prospects of women through piloting routine maintenance works for adoquines roads by converting former MCAs into small maintenance micro-enterprises.

*The Project expects to address the disaster risk and climate change transversal theme of the CPS.* It will do this through incorporating climate-proven design and standards to ensure proper drainage and resilience to heavy rainfall, flooding, and landslides as well as other climate-related hazards identified through the climate screening on Project-financed road sections. The Project will also provide support to develop adaptation capacity within the MTI and FOMAV to mitigate climate change in the road sector. This support will also be aligned with the goals of the Strategic Framework for Developing the Dry Corridor in Nicaragua, currently under preparation.

*Proposed Project activities also contribute towards meeting the goals of both the National Human Development Plan and the National Transport Plan of Nicaragua, aimed at reducing poverty, contributing to the development of productive zones, and improving the quality of life of the population living in the targeted areas.* MTI is committed to supporting economic growth and poverty reduction by improving the road infrastructure in the productive zones with direct benefits to the agricultural, tourism and trade sectors, thus reducing costs of crop and livestock production, increasing the overall economy, improving access, mobility and accessibility to the areas of high productivity.

C. Proposed Development Objective(s)

To improve safe and sustainable access to markets and services in targeted rural and urban areas of Nicaragua and enable the Recipient to respond promptly and effectively to an Eligible Emergency.

Key Results (From PCN)

Proposed PDO level results indicators:
- Reduced total travel time on improved rural road sections;
- Greater share of population with access to an all-weather road in the project area (proportion and number of people living within 2 km), disaggregated by gender;
- Reduced number of road traffic fatalities on selected road sections.

D. Concept Description

The proposed Project will be financed by an IDA credit of US$80 million, and will build on the lessons and results from the previous World Bank-financed transport projects while expanding to new areas of engagement addressing road safety and climate change challenges. The Project will finance the following components:

Component 1: Road infrastructure improvement (estimated cost US$73 million including contingencies). The first component will finance physical works for road rehabilitation and maintenance to improve road connections of population to social services and markets and to ensure sustainability of road assets:

i. **Sub-Component 1.1: Decongesting roads providing urban access to Managua.** This sub-component is intended to increase road capacity and reduce congestion through upgrading La Garita-Tipitapa (6.6 km) and Las Piedrecitas - Mateare (11.8 Km) road sections from two to four lanes to improve access to Managua for commuters and reduce transport costs for the transit traffic (La Garita – Tipitapa forms part of the Northern Corridor of the Pan-American Highway). Physical road safety measures will be incorporated in the design to ensure safety of the pedestrians and non-motorized traffic (NMT) and subjected to the road safety audits financed under component 2.2. The consulting services for supervision of works are also proposed to be financed under this component;

ii. **Sub-Component 1.2: Rehabilitating and improving rural roads** through paving selected rural road sections with adoquines (cobblestone) surfacing or any other viable surface replacement option acceptable to IDA, all within the existing right of way. This sub-component will finance priority road improvement works for approximately 50 km of rural roads in key productive regions using MCA approach for the labor-intensive works of laying adoquines, and the construction of simple drainage facilities and structures. The larger and more experienced private sector firms will be contracted to carry out the equipment-intensive earthworks on these roads and major suppliers will be procured for adoquines in line with the procurement guidelines of the World Bank. This sub-component is intended to: (i) improve all-weather access to essential markets and services for the target population in the intervention regions; (ii) increase resilience of rural roads to climate and flooding through proper drainage facilities and structures; and (iii) create short-term employment opportunities in road construction industry and provide skill-building opportunities, specifically encouraging greater participation of women;

iii. **Sub-Component 1.3: Maintaining the road assets** through the following interventions:
   a. **Periodic maintenance of the 20 km of priority section of the core trunk road network under FOMAV applying asphalt resurfacing, all within the existing right of way.** This will contribute to alleviating the
transport logistics burden on the core road network, reducing transport costs, and increasing productivity. The proposed asphalt resurfacing will be in line with standard technical specifications in the country and internationally;

b. **Results-based minor routine maintenance of selected rural roads paved with adoquines, all within the existing right of way.** The routine maintenance works will be carried out by small micro-enterprises, created from the former MCAs in an effort to provide sustainability of the MCA model, generate longer term employment opportunities for former MCA workers, and ensure preservation of the adoquines rural roads and Project investments. The first results-based minor routine maintenance contract on the adoquines roads was piloted under the ongoing IDA-financed Rural Roads Infrastructure and Improvement Project (P123447), under which the former MCAs were converted into the first micro-enterprises. This sub-component will support FOMAV in expanding this approach to other adoquines roads and creating more community based micro-enterprises. Similar to the MCA model, women will be specifically encouraged to participate.

**Component 2: Road Safety (total estimated cost US$5 million).** This component will potentially support activities to strengthen the institutional capacity for managing road safety and physical works to improve road safety measures of the road network. The proposed interventions will include:

i. **Sub-Component 2.1: Reducing selected road accident hazardous spots.** This sub-component will finance the implementation of physical road safety measures at the selected top critical spots with highest road fatality risks identified by the Road Safety Assessment of Nicaragua’s Paved Road Network financed by Inter-American Development Bank in 2013. The list of priority critical spots will be selected for inclusion in the Project based on the public consultations to ensure that the voices of women and children as well as vulnerable groups are considered;

ii. **Sub-component 2.2: Building road safety management capacity.** This sub-component will support the implementation of Nicaragua’s Road Safety Strategy for the period of 2013-2018 and capacity building for managing road safety. It will also finance a road safety audit and/or pedestrian safety study for the La Garita – Tipitapa and Las Piedrecitas – Mateare road sections to inform the design on safety measures for pedestrians and non-motorized traffic that will be implemented under component 1.1.

**Component 3: Institutional Strengthening and Implementation Support (total estimated cost US$ 2 million).** This component would support the MTI and FOMAV in the following:

i. **Developing adaptation capacity to climate change in the road sector.** This sub-component will build on the findings and recommendations of the currently ongoing study financed by the Nordic Development Fund. The study identifies the institutional capacity needs for addressing climate change in the road sector and will develop climate change scenarios for the roads most vulnerable to climate impacts. This sub-component will be also aligned with the approaches proposed in the Strategic Framework for Developing the Dry Corridor in Nicaragua, currently being prepared by the Government with support from the World Bank;

ii. **Strengthening monitoring and evaluation capacity and quality of statistical data in the transport sector.** This subcomponent will support the MTI’s Planning Unit in: (i) strengthening its monitoring and evaluation capacity and collection of road sector statistical data; and (iii) administration and management of information collected through the statistical software program;

iii. **Impact Evaluation.** This sub-component will support the forward-looking evaluation of impacts from the interventions proposed in this Project.

**Component 4: Immediate Response Mechanism** (with an initial zero dollar allocation. In the event this component is activated, it will be financed with IDA funds). This component allows for the possibility to access resources for eligible
expenditures in event of an Eligible Crisis or Emergency, to provide immediate and effective response to said Eligible Crisis or Emergency. This component is being proposed for incorporation into the Project with zero allocation, given that Nicaragua is a country highly vulnerable to natural disasters and climate change phenomena such as drought, hurricanes, El Niño and its induced events including flooding and landslides, as well as geological hazards such as earthquakes and volcanic eruptions.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Civil works will be undertaken on existing roads only, and no project components or activities are located in critical natural habitats.

The La Garita–Tipitapa and Las Piedrecitas–Mateare roads, proposed for expansion to four lanes, are located in Managua city. These civil works will necessitate the cutting of some old-growth trees along the current roadside. A peri-urban/urban reforestation plan will therefore need to be approved by La Militancia Sandinista del Instituto Nacional Forestal (INAFOR) and implemented by MTI. Given the presence of pedestrians and carriages, bicycles, and carts, a safe path for non-motorized transport (NMT) and pedestrians will be established during construction phase.

The expansion to a four lane highway will also maintain a route for NMT.

The pavement of existing rural roads with adoquines is currently proposed in the following locations: Jicaro–Murra in Granada region, Corn Island in RACS, Macuelizo–Santa María in Nueva Segovia region, Cardenas in Rivas region, and La Libertad–San Pedro de Lóvago in Chontales region. These roads connect the productive regions to semi-urban commercial and regional urban centers and have been selected as part of Comprehensive Road Program in Productive Zones of Nicaragua developed under the ongoing Bank-financed road project (P123447). These regions are characterized as the most productive zones predominantly focusing on agricultural production and livestock activities. All civil works will take place along existing unpaved roads within existing right of way (RoW), with few steep sections, and are small in nature (community executed and consisting of a sand-cement base with adoquines placed on top). The potential environmental and social impacts are limited as these unpaved roads are already in use by vehicles. The works will be of the same magnitude as under the ongoing project, for which the screening process is already in place, and this same screening process will be used to ensure that any sections that might have a negative impact on protected areas or sensitive ecological habitats are not approved.

The periodic maintenance of core truck road section is proposed on San Lorenzo–Muhan section located in Chontales region. Maintenance works will take place within RoW of existing road and involve minor activities (surface cleaning, drainage structure repairs, patching of potholes, asphalt resurfacing), none of which are expected to have any significant social or environmental impacts.

B. Borrower’s Institutional Capacity for Safeguard Policies

The MTI has a long track record implementing five previous Bank projects through its specially created project coordination unit Unidad Coordinadora de Recursos MTI – Banco Mundial (UCR MTI-BM). The considerable previous experience has increased the familiarity of MTI officials with the Bank’s safeguards policies and procedures, as well as enabled the smooth project implementation and due diligence on fiduciary and safeguards matters. The same implementation arrangements will be retained for the proposed project as well, with MTI having the overall responsibility for project implementation. The Road Maintenance Fund (FOMAV, Fondo de Mantenimiento Vial)
through UCR MTI-BM will be responsible for the implementation of maintenance sub-component 1.3. All day-to-day project management and fiduciary responsibilities will be handled by the director of the UCR MTI-BM, directly reporting to the Minister and Vice Minister of Transport and Infrastructure.

As a result of MTI’s previous exposure to Bank safeguards, the organization has put in place appropriate environmental and social manuals and procedures to guide project preparation and implementation. The oversight and management of safeguard requirements for the project activities implemented by MTI will be handled by the Environmental and Social Management Division (DGA) of MTI, which has, over the years, enhanced its technical and reporting skills, as well as increased staff resources, on safeguards related issues. FOMAV will rely on the DGA for assistance with regards to safeguards requirements. This arrangement has proven to be effective during previous projects.

The Bank team assessed the adequacy of MTI and FOMAV’s existing safeguards management tools, procedures and institutional arrangements to the nature and scope of the proposed project. Given the scope and nature of all potential adverse impacts essentially restricted to the construction phase, both MTI and FOMAV institutional capacity to manage safeguard risks have been found to be adequate. Nonetheless, based on this evaluation although capacity of the DGA of MTI is stronger in environmental safeguards compliance and in Health and Safety practices/policies, the DGA will need additional support and technical assistance to strengthen its social safeguards capacity, including the preparation and implementation of the ARAPs.

C. Environmental and Social Safeguards Specialists on the Team

Noreen Beg, Mariela Mena

D. Policies that might apply

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
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<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>Based on OP 4.01, the project is classified as Category B, as the associated potential environmental and social impacts are moderate to low, site-specific, and reversible in nature. Civil works will be undertaken on existing roads only, and no project components or activities are located in critical natural habitats. As a result of the project there will be positive impacts on health and quality of life; such as reduction of Total Suspended Solids (TSPs) from unpaved roads, noise reduction, travel time reductions, decongestion with reduced GHG emissions and improved air quality. The road maintenance sub-component will also improve road surface conditions and drainage, and reduce road erosion. The road safety physical interventions will improve safety for the pedestrians and NMT and contribute to reduction of fatalities on roads.</td>
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None of the proposed road sections traverse critical ecological habitats. Maintenance works would involve minor activities such as surface cleaning, repairing of drainage structures, patching of potholes, and resurfacing of asphalt, none of which are expected to have any significant impact. Upgrade of the urban access roads in La Garita – Tipitapa and Las Piedrecitas – Mateare will necessitate the cutting of some old-growth trees along the current roadside. A peri-urban/urban reforestation plan will therefore need to be approved by La Militancia Sandinista del Instituto Nacional Forestal (INAFOR) and implemented by the Ministry of Transport and Infrastructure (MTI). These trees have not been found to have any known societal or cultural significance that could lead to opposition from the community. Given the presence of pedestrians and carriages, bicycles, and carts, a safe thoroughfare for non-motorized transport and pedestrians will be established during the construction phase.

The type of safeguards instruments to be used are ESIs and EMPs. The scope and structure of the content of the ESIs follows the standard format for an ESIA for a Project of moderate impact. The ESIA describes the Project objective, and a description of the proposed works. It details the relevant legal, environmental, and institutional framework of Nicaragua. Information is provided on both direct and indirect areas of influence of the Project. A description of the physical, biological, and socio-cultural environment is provided. Environmental and social impacts and their magnitude are addressed, as well as mitigation measures to minimize such impacts. An EMP is provided, with subsections on borrow pits, water and soil management, Environmental health and Safety, etc. A detailed reforestation and revegetation plan is included.

The team requested that the ESIs from January 2015 be updated to include a new socio-economic survey, to determine if borrow pit sites have changed, and to note any changes in vegetation or number of trees. The team also asked that an evaluation of alternatives to the Project be included in the ESIA, as well as some information on Bank OPs triggered.
Finally, the team asked for a section explaining how the unpaved track parallel to the highway will be maintained or replaced for the continued use of non-motorized transport, both during construction and the operational phase. The team also requested that additional consultations with local communities be held and recorded, and an appropriate grievance mechanism established.

<table>
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<tr>
<th>Natural Habitats OP/BP 4.04</th>
<th>Yes</th>
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OP 4.04 is triggered on a precautionary basis. No project components or activities are expected to directly or indirectly cause any significant conversion of or loss to any existing natural habitats. However, there are some road sections with river crossings, which require protection of river beds and/or reforestation to reduce erosion and landslides. Appropriate provisions will be included in the ESIA and EMPs. The ESIA and EMPs will include appropriate screening criteria to ensure that: a) impacts on rivers are properly evaluated; and b) include mitigation measures.

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<tr>
<th>Forests OP/BP 4.36</th>
<th>No</th>
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The project will not support civil works located within forested areas or plantations as defined under OP 4.36. Although some of the rural roads may pass through forested areas, the civil works (laying of adoquines on existing unpaved roads) has low environmental impact, and will not require the removal of natural forest. Therefore, the policy is not triggered.

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<tr>
<th>Pest Management OP 4.09</th>
<th>No</th>
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This policy is not triggered. No pesticide or herbicide will be utilized during road construction or road maintenance under the project. The elimination of vegetation at the edges of the roads will be undertaken mechanically or manually, with no chemicals involved.

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<tr>
<th>Physical Cultural Resources OP/BP 4.11</th>
<th>Yes</th>
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OP 4.11 is triggered on a precautionary basis. All civil works will take place within the right of way of existing roads, and thus no impact to any physical or cultural resource (PCR) is expected, nor will access to places of worship or shrines be restricted during construction. However, there will be land movements and material banks usage, and chance findings may occur. The ESIA submitted to IDA for review already include chance finding mechanisms and corresponding protocols of action.

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<tr>
<th>Indigenous Peoples OP/BP 4.10</th>
<th>TBD</th>
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Indigenous people constitute about 8.2 percent of Nicaragua’s total population. Most are concentrated
in the North Atlantic region; however, sizable minorities reside in the Central and Pacific regions, including part of Matagalpa, Leon and Rivas. To verify whether any of the roads financed by the project are located in the vicinity of these indigenous communities, a Social Assessment (SA) will be carried out and include public consultations with area residents to identify whether any of the residents self-identify as members of culturally distinct collectives or whether they possess customary social or political institutions. The SA will also include consultations with the indigenous people’s legal and traditional representatives and community members to verify their broad support for the project. In case if indigenous people are identified to be present physically in the areas of influence of the road works, an Indigenous Peoples Plan (IPP) will be prepared prior to appraisal. No investments will be considered in locations where indigenous community is not supporting the project. Therefore, this policy is TBD until the completion of the SA at the proposed project sites.

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<thead>
<tr>
<th>Involuntary Resettlement OP/BP 4.12</th>
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Civil works envisaged in component 1 for road construction works and periodic maintenance and component 2 for implementation of physical measures for road safety may induce limited land acquisition in the form of strips of land in the right of way, which will include rocks, grass, trees and farmland. The upgrade of urban access roads in Managua due to the nature of works may induce some resettlement of encroachers and informal traders on the roadside. A site-specific Abbreviated Resettlement Action Plans (ARAP) will be prepared for two urban access roads (La Garita – Tipitapa and Las Piedrecitas – Mateare), consulted upon and disclosed after Bank’s approval and prior to the award of contract. The contracts for both the supervision consultant and the works contractor on these two roads specifically will include the Environmental and Management Plan (ESMP) and the required resources to implement the ARAP (such as construction of small improvements for the encroachers and small vendors). Currently the client is preparing ARAPs for adequate compensation and sanitation under OP 4.12 BM. The number of people that may be affected and type of impacts associated
in the two roads (La Garita - Tipitapa and Las Piedrecitas - Mateare) will be identified and confirmed after the completion of the ARAPs.

In case that not all detailed designs are completed by appraisal and there are slight changes in design during implementation, that could result in the involuntary taking of land, an RPF will be prepared prior to appraisal to cover any potential social impacts on all project financed roads.

<table>
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<tr>
<th>OP/BP 4.37: Safety of Dams</th>
<th>No</th>
<th>OP 4.37 is not triggered as the project will not support the construction or rehabilitation of dams nor will support other investments which rely on the services of existing dams.</th>
</tr>
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<tr>
<td>OP/BP 7.50: Projects on International Waterways</td>
<td>No</td>
<td>The project will not affect international waterways.</td>
</tr>
<tr>
<td>OP/BP 7.60: Projects in Disputed Areas</td>
<td>No</td>
<td>The project will not affect disputed areas as defined under the policy OP 7.60. Therefore, the policy is not triggered.</td>
</tr>
</tbody>
</table>

**E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Dec 19, 2016

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

Site-specific Environmental and Social Impact Assessments (ESIAs):

(i) The proposed adoquines road sections are continuations of the sections financed by the Bank under previous and ongoing projects, and therefore, the respective ESIAs had already been prepared for the full lengths of these roads. However, the MTI is currently updating the ESIAs for these proposed sections and expects to submit them to the Bank for review by the end of October 2016. The scope of the works will be of the same magnitude as under ongoing Bank-financed project, which already has a screening process in place. This existing screening process will be used to ensure that any of the new proposed interventions that might have a negative impact on protected areas or sensitive ecological habitats are not approved. All ESIAs will be finalized, consulted upon and disclosed after Bank approval and before project appraisal in the country and InfoShop;

(ii) The site-specific ESIA for the upgrade of the La Garita – Tipitapa urban access road has also been submitted to the Bank in April 2016, and comments have been provided to the MTI. The site-specific ESIA for the Las Piedrecitas – Mateare urban access roads is currently under preparation and expected to be completed by the end of September 2016. These ESIAs will incorporate peri-urban/urban reforestation or tree replacement plans as necessary, prior to final approval. All ESIAs will be finalized, consulted upon and disclosed after bank approval and before project appraisal in the country and InfoShop;
(iii) The site-specific ESIA for the periodic maintenance of San Lorenzo – Muhan trunk road section is currently under preparation and expected to be completed by the end of September 2016, consulted upon and disclosed in the country and InfoShop after bank approval and before project appraisal.

Abbreviated Resettlement Action Plan ARAPs:
(i) The preparation of the ARAPs for two urban access roads, La Garita – Tipitapa and Las Piedrecitas – Mateare, is underway and will be completed, consulted upon and disclosed after Bank’s approval and before project appraisal both in the country and InfoShop.

Resettlement Policy Framework (RPF):
(i) In case that not all detailed designs are completed by appraisal and there are slight changes in design during implementation, that could result in the involuntary taking of land, an RPF will be prepared prior to appraisal to cover any potential social impacts on all project financed roads.

CONTACT POINT

World Bank
Sevara Melibaeva
Senior Transport Economist

Borrower/Client/Recipient
Republic of Nicaragua

Implementing Agencies
Ministerio de Transporte e Infraestructura (Ministry of Transport and Infrastructure)
Cristhel Guzman
Directora UCR-MTI-BM
cristel.guzman@mti.gob.ni

Road Maintenance Fund (FOMAV)
Karen Molina
Directora Ejecutiva
kmolina@fomav.gob.ni

FOR MORE INFORMATION CONTACT
The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500

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<th>APPROVAL</th>
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<tr>
<td>Task Team Leader(s):</td>
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<tbody>
<tr>
<td>Safeguards Advisor:</td>
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<td>Practice Manager/Manager:</td>
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<td>Country Director:</td>
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