Environmental and Social Review Summary

Sao Paulo State Sustainable Transport Project

This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed prior to the date on which MIGA’s Board of Directors considers the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA’s activities. This document should not be construed as presuming the outcome of the decision by MIGA’s Board of Directors. Board dates are estimates only.

Any documentation that is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.

Country: Brazil
Sector: Transport
Project Enterprise: State of Sao Paulo (SoSP)
Environmental Category: B
Date ESRS Disclosed: January 31, 2014
Status: Due Diligence

A. Project Description

MIGA will mobilize US$300 million of private financing for the State of Sao Paulo (SoSP) through a Non-Honoring Sovereign Financial Obligation (NHSFO) guarantee. The private financing will be used to scale up an existing US$429 million World Bank (WB)-supported program. The main objective of the WB program is to contribute to the improvement of SoSP’s transport and logistics efficiency and safety while enhancing SoSP’s capacity in environmental and disaster risk management.

The WB program includes three components: (i) Improving transport and logistics efficiency and safety through selecting road sections that will enhance connectivity between roads-rail-water modes of transport and general road improvements (e.g. re-surfacing, construction of third lane, paving of shoulders, improvement of intersections); (ii) Strengthening the State’s capacity in sustainable land use planning and territorial management; and (iii) Strengthening the State’s capacity to plan and manage natural disasters. MIGA’s support for co-financing would be exclusively dedicated to the first component (focused on upgrade of physical infrastructure).

The WB signed the Loan Agreement for the US$429 million operation ($300 million of financing from the WB and $129 million contribution from SoSP) in September 2013, and initial implementation work has commenced. The complimentary financing to be mobilized from private lenders and guaranteed by MIGA will be used to increase the scope of activities under the physical component by adding additional road rehabilitation and upgrading works. Since the funds guaranteed by MIGA will not be separated from the general funds for the overall WB program, the “Project” subject to due diligence review includes all of the roads and bridges to be upgraded and improved under Component 1 of the WB program.
Although the State of São Paulo’s transport network is one of the most developed and modern transport networks in Brazil, it tends to be mono-modal, and remains inadequate given the State’s major role as a logistics hub in the region. For that reason, the project entails interconnecting different modes of transport by including the following works:

- The rehabilitation of approximately 800 Km of selected roads for their potential contribution to inter-modality (proximity of harbors and railways) (Table 1);
- The reconstruction of two bridges to enhance the navigability of the Tiete inland waterway corridor complex;
- Undertaking a pilot of Performance Based Contracts for road rehabilitation and maintenance; and
- Works to improve road safety.

Table 1 Description of the roads and bridges to be upgraded.

<table>
<thead>
<tr>
<th>Section</th>
<th>Road No.</th>
<th>Municipality</th>
<th>Description of Works</th>
<th>Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SP 304</td>
<td>Jaú - Bariri - Itaju</td>
<td>Rehabilitation; Additional lanes</td>
<td>49.9</td>
</tr>
<tr>
<td>2</td>
<td>SP 304</td>
<td>Ibitinga - Borborema – Novo Horizonte</td>
<td>Rehabilitation; Additional lanes; Specific improvements</td>
<td>54.4</td>
</tr>
<tr>
<td>3</td>
<td>SP 379</td>
<td>Uchoa - Ibirá - Urupês - Irapuã - Sales</td>
<td>Rehabilitation; Additional lanes</td>
<td>51.3</td>
</tr>
<tr>
<td>4</td>
<td>SP 425</td>
<td>Miguelópolis - Guaira</td>
<td>Rehabilitation; Additional lanes; Specific improvements</td>
<td>33.7</td>
</tr>
<tr>
<td>5</td>
<td>SP 425</td>
<td>Guaira - Barretos</td>
<td>Rehabilitation; Additional lanes</td>
<td>34.4</td>
</tr>
<tr>
<td>6</td>
<td>SP 425</td>
<td>Barretos – Olimpia - Guapiaçu</td>
<td>Rehabilitation; Additional lanes</td>
<td>55.5</td>
</tr>
<tr>
<td>7</td>
<td>SP 419</td>
<td>Penápolis - Alto Alegre - Luiziânia</td>
<td>Resurfacing and paving of the shoulders</td>
<td>35.3</td>
</tr>
<tr>
<td>8</td>
<td>SP 463</td>
<td>Santo Antônio do Arancanguá - General Salgado - Auriflama (SP 310)</td>
<td>Rehabilitation (pilot Performance Based Maintenance contracts)</td>
<td>61.0</td>
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<tr>
<td>9</td>
<td>SPA 096/463</td>
<td>Auriflama - General Salgado</td>
<td>Rehabilitation (pilot Performance Based Maintenance contracts)</td>
<td>9.5</td>
</tr>
<tr>
<td>10</td>
<td>SP 463</td>
<td>Jales - Pontalima - Auriflama (SP 310)</td>
<td>Rehabilitation (pilot Performance Based Maintenance contracts)</td>
<td>27.1</td>
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<tr>
<td>11</td>
<td>SP 191</td>
<td>Anhembi – Bridge Construction</td>
<td>Construct new bridge</td>
<td>0.0</td>
</tr>
<tr>
<td>12</td>
<td>SP 147</td>
<td>Anhembi – Bridge Construction</td>
<td>Construct new bridge</td>
<td>0.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td><strong>412.1</strong></td>
</tr>
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</table>

Added with Complimentary Private Financing Guaranteed by MIGA

<table>
<thead>
<tr>
<th>Section</th>
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<th>Municipality</th>
<th>Description of Works</th>
<th>Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SP 461</td>
<td>Nhandeara - Votuporanga - Álvares Florence - Cardoso</td>
<td>Resurfacing the road and shoulders, provision of additional lanes on the stretch between the intersection with SP-310 and access to Cardoso</td>
<td>70.6</td>
</tr>
<tr>
<td>2</td>
<td>SPA 473 / 310</td>
<td>Monte Aprazível</td>
<td>Resurfacing</td>
<td>19.1</td>
</tr>
<tr>
<td>3</td>
<td>SPA 423 / 310</td>
<td>Potirendaba</td>
<td>Provision of a third lane (9 km) and paving of the shoulder (21 km), provision of a roundabout, grading and resurfacing, signage and addition of guardrails on the bridge</td>
<td>18.8</td>
</tr>
<tr>
<td>4</td>
<td>SPA 395 / 310</td>
<td>Catiguá - Tabapuã</td>
<td>Resurfacing, creation of shoulders and construction of 2 roundabouts</td>
<td>13.2</td>
</tr>
</tbody>
</table>
### Section Road No. Municipality Description of Works Length (km)

<table>
<thead>
<tr>
<th>Section</th>
<th>Road No.</th>
<th>Municipality</th>
<th>Description of Works</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SP 294</td>
<td>Tupi Paulista - Santa Mercedes - Paulicéia - Panorama</td>
<td>Resurfacing</td>
<td>28.0</td>
</tr>
<tr>
<td>6</td>
<td>SPA 126 / 563</td>
<td>Dracena</td>
<td>Resurfacing</td>
<td>10.8</td>
</tr>
<tr>
<td>7</td>
<td>SPA 592 / 294</td>
<td>Adamantina - Mariápolis</td>
<td>Resurfacing; paving of the shoulders</td>
<td>18.9</td>
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<tr>
<td>8</td>
<td>SPA 570 / 294</td>
<td>Osvaldo Cruz - Sagres</td>
<td>Resurfacing; paving of the shoulders</td>
<td>12.8</td>
</tr>
<tr>
<td>9</td>
<td>SPA 431 / 425</td>
<td>Caiabu</td>
<td>Resurfacing; paving of the shoulders</td>
<td>15.6</td>
</tr>
<tr>
<td>10</td>
<td>SP 304</td>
<td>São Pedro - Santa Maria da Serra - Torrinha</td>
<td>Restoration of road and improvements</td>
<td>60.3</td>
</tr>
<tr>
<td>11</td>
<td>SP 129</td>
<td>Porto Feliz - Boituva - Tatuí</td>
<td>Doubling of the road</td>
<td>29.9</td>
</tr>
<tr>
<td>12</td>
<td>SP 334</td>
<td>Cristais Paulista / Pedregulho</td>
<td>Resurfacing and improved access at Jeriquara - Rifaina</td>
<td>33.8</td>
</tr>
<tr>
<td>13</td>
<td>SP 147</td>
<td>Anhembi - Piracicaba</td>
<td>Resurfacing</td>
<td>86.4</td>
</tr>
</tbody>
</table>

**Approximate Total**

(only one of section 5 (SP294) or section 12 (SP 334) will be included in the project – not both)

390

The planned road works are primarily located in the central and northwest regions of the State, and will mostly take place within the existing rights of way (ROW) though there will also be some associated sites during construction. The ROW consists of the paved strip and the entire area reserved for the construction, operation, and maintenance of the roadside. The sites associated with the construction of the road projects include borrow sites, materials treatment areas, quarries, access roads, and facilities provided for project workers. The bridges will be reconstructed in the same locations as the existing bridges, and depending on the construction technology chosen; it will be possible to maintain use of the existing bridge during the construction period. One of the bridges to be constructed is on the Piracicaba River, and the other is on SP-147 over the Tietê River.

### B. Environmental and Social Categorization

This project is categorized B under the World Bank’s Safeguards Policies and MIGA’s Policy Environmental and Social Sustainability (2013) because the potential risks and impacts are limited, few in number, site specific, largely reversible and readily addressed through mitigation measures.

The key identified environmental and social issues associated with the proposed rehabilitation and construction works for roads and bridges in Sao Paulo include: habitat alteration and fragmentation, storm water, waste, noise, air emissions, wastewater and land acquisition. Most impacts will be managed by adhering to generally recognized standard operating procedures, guidelines, or design criteria.

The Project is not expected to cause any large scale, significant and/or irreversible negative environmental impacts. As it supports a number of site specific investments in, or near existing road infrastructure, the environmental impacts resulting from construction works will be limited in spatial extent and time, mainly during the execution of civil works. Likewise, the environmental impact of the reconstruction of two bridges in replacement of existing ones should be limited to the site of intervention with limited consequences on environment.

The overall WB program is also expected to have a positive impact effect on the environment resulting from the improvements on territorial planning, environmental monitoring and
environmental licensing process. Socio-economic benefits are anticipated to result from more efficient and reliable transportation, improved safety of roads and reduced vulnerability of transportation infrastructure to natural disasters.

C. Applicable Standards

While all Performance Standards are applicable to this investment, based on the current information provided by WB, the investment will have impacts which must be managed in a manner consistent with the following Performance Standards:

- PS1: Assessment and Management of Environmental and Social Risks and Impacts
- PS2: Labor and Working Conditions
- PS3: Pollution Prevention and Abatement
- PS4: Community Health, Safety & Security
- PS5: Land Acquisition and Involuntary Resettlement
- PS6: Biodiversity Conservation & Sustainable Natural Resource Management

The following World Bank Safeguards Policies have been triggered by WB for the project:

- OP 4.01 Environmental Assessment
- OP 4.04 Natural Habitats
- OP 4.26 Forests
- OP 4.09 Pest Management
- OP 4.11 Physical Cultural Resources
- OP 4.10 Indigenous Peoples
- OP 4.12 Involuntary Resettlement

Based on WB’s assessment although none of the project works are located in areas occupied or claimed by indigenous peoples, the Borrower assessed that some of the roughly 3,000 indigenous people living in the 33 Indigenous Lands located throughout Sao Paulo state could potentially be affected by the land use planning and environmental enforcement activities under Component 2. As the MIGA guaranteed funds will exclusively be used for Component 1 of the WB Project, the proposed project activities, which will not directly affect any indigenous peoples, do not trigger PS 7 Indigenous Peoples according to MIGA’s Environmental and Social Sustainability Policy. The same rationale applies to the applicability of PS8 – given that a majority of the work will be undertaken within the existing road ROW; cultural heritage is unlikely to be an issue for Component 1.

Regardless, all components of the Project will apply the WB’s OP 4.10 on Indigenous Peoples and OP 4.11 on Physical Cultural Resources. An Indigenous Peoples Planning Framework (IPPF) and a Physical Cultural Resources Framework have been prepared by the Borrower to be applied to all components of the Project. These frameworks were disclosed by SoSP (http://www.der.sp.gov.br/website/Home/#, available on the tab “Malha Rodoviária” – Report: “Programa de Transporte, Logistica e Meio Ambiente”) and published on the World Bank’s Infoshop website.
D. Key Documents and Scope of MIGA Review

For its due diligence, MIGA relied on the appraisal work already conducted by WB (refer to the Integrated Safeguard Datasheet (February 2013) and the Project Appraisal Document (May 2013) on the WB Infoshop website). The following documents were reviewed by WB and MIGA:

- Complementary Environmental and Social Impact Assessment: Avaliação de Impacto Social e Ambiental (AISA) - Complimentar (for additional roads) – December 20, 2013
- Environmental and Social Impact Assessment: Avaliação de Impacto Social e Ambiental (AISA) (for initial World Bank Component 1 of 280 km of road) – final version of January 23, 2013
- Environmental and Social Management Framework: Marco Conceitual de Gestão Ambiental – final version of January 23, 2013
- Physical Cultural Resources Framework: Marco Conceitual de Patrimônio Cultural Físico – final version of January 23, 2013

These documents adequately assess the social and environmental impacts of the proposed project, and provide a sound basis for the proper mitigation of the environmental and social risks posed by this project. These documents are all available on the World Bank’s Infoshop website (http://documents.worldbank.org/curated/en/home) and SoSP DER website (http://www.der.sp.gov.br/website/Home/#, available on the tab “Malha Rodoviária” – Report: “Programa de Transporte, Logística e Meio Ambiente”).

E. Key Issues and Mitigation

PS1: Social and Environmental Assessment and Management Systems

As the Project supports a number of small investments in existing road infrastructure, and thus, the environmental impacts resulting from construction work in these sections are expected to be relatively minor, localized and mainly related to the execution of the civil works. The Project also includes the construction of two new bridges, replacing existing ones, which will improve fluvial navigability, allowing greater integration between different modes. Negative environmental impacts related to construction of bridges should be limited to the site of interventions and SoSP has demonstrated adequate capacity and procedures to deal with environmental mitigation measures (as demonstrated during the implementation of the Bank's ongoing project).
Social and Environmental Assessment:

SoSP has undertaken an integrated Environmental and Social Impact Assessment (ESIA) to evaluate the potential risks and benefits of Project activities, examine alternatives, and identify ways of enhancing the positive impacts while minimizing, mitigating, or compensating for any adverse social effects. The ESIA concludes that rehabilitation and upgrading of the transport networks is expected to generate significant positive social impacts. In addition to reduced transportation costs, the Project is expected to improve road safety, generate positive impacts on land values, create jobs, and raise incomes throughout the state. These positive impacts are expected to be further enhanced through the complementary interventions proposed under Components 2 and 3 designed to strengthen the State’s environmental and disaster risk management capacities.

The ESIA reports are comprised of two main parts: (i) Part A: an Environmental and Social Assessment and (ii) Part B: an Environmental Management Plan. The ESIA for the original WB Component 1 also includes a Part C: an Institutional Strengthening Program to support demands coming from the Project. The Environmental Management Plan includes consideration of both construction and operations and maintenance phases.

The ESIAs identified for each proposed component and sub-component the type of interventions expected, with a description of technical issues (design, project, dimension and needs), as well as, for each one, an environmental screening. It concludes that during implementation the Project is not expected to cause any large scale, significant and/or irreversible negative environmental impacts. In some cases, where the final design for the road section was not available (e.g. the potential doubling of a section of SP 129), a ‘worst case scenario approach was undertaken in the ESIA to provide a conservative estimate of impact. The identified impacts for these road sections will be refined when the final design details are available, and an ESIA addendum will be prepared and submitted to the WB and MIGA.

Management Program and Monitoring:

In accordance with the principles and objectives of the Departamento de Estradas de Rodagem – Sao Paulo (DER-SP, Department of Roads and Highways) Environmental Policy, DER-SP has developed an Environmental Management System (EMS), which establishes general guidelines, procedures, project instructions and specifications for the development of activities of the DER-SP. The EMS includes a set of organizational tools needed for the environmental management of road construction, operation and maintenance in a manner consistent with environmental legislation in Brazil and Sao Paulo (which is consistent with the requirements of PS1). The instruments defined EMS apply to the environmental management activities executed by DER-SP staff or by external agents (e.g. construction contractors) hired for project implementation, construction, supervision, operation and maintenance of highway projects.

An Environmental and Social Management Framework (ESMF) has been prepared specifically for the Project to outline the set of guidelines, procedures and criteria to be used for screening activities and ensure that such activities do not cause any potential large scale, significant and/or irreversible negative environmental and social impacts. Environmental and Social Management Plans (ESMP) have also been prepared for the set of proposed works and specific road sections, as needed, upon diagnostic from the ESIA. ESMF and ESMP, respectively, specify guidelines and procedures to be followed by the construction contractors, covering aspects such as location of construction camps, clearance of vegetation, noise, traffic control, safety signaling, disposal of construction debris and waste material, which will be incorporated in the bidding documents for civil works, among others. Compliance with the practices outlined in ESMPs will be a contractual
obligation of the contractors and will be incorporated into the Project Operational Manual for Contractors.

Organizational Capacity and Training:

The implementation of the Project will be undertaken through an implementing agency, centralized in a dedicated implementation unit of the Road Agency (Unidade de Coordenacao de Projetos, UCPR, of the DER). Within the DER-SP, environmental management is the responsibility of the Environmental Advisory Services unit, which is part of the Engineering Directorate. The Engineering Directorate is ultimately responsible for the coordination of all actions of the DER-SP relating to environmental issues at all stages of highway projects: integration of social and environmental requirements in project design, preparation of environmental impact studies for licensing purposes, environmental monitoring during construction of implementation of mitigation measures and compensatory programs, and management of environmental aspects in the operation phase of the road.

The DER-SP is implementing the WB’s current loan, State Feeder Roads Program (P106663), with the support of a management consulting firm. The DER-SP has demonstrated adequate capacity and procedures to deal with environmental mitigation measures. Environmental management of the works under the project will be overseen by independent consulting firms, following the best practices inherited from other transportation projects in Sao Paulo and Brazil.

During construction implementation, the WB team will (a) supervise the implementation of the agreed Environmental and Social Frameworks as triggered by the Project, (b) address concerns from the Borrower or other stakeholders on safeguards policies, and (c) employ or cause to be employed environmental and social consultants to further support the UCPR and DER-SP, as needed. Regular training to counterparts on WB safeguard policies will also be fostered. During operations and maintenance, DER-SP will be responsible for environmental management and monitoring, as per their EMS.

PS2: Labor and Working Conditions

An assessment of Brazil’s national regulation on labor and working conditions and enforcement framework against MIGA’s Performance Standard 2 concluded that the national regulation is in line with MIGA’s performance standard requirements and that enforcement capacity is considered sufficient. Moreover, work conditions of the staff and of contractors working on contracts financed by the Project will be supervised by independent social and environmental supervision consultants to be contracted by the SoSP following terms of references agreed upon with the WB.

The Brazilian Law provides that the terms of employment contracts ensure: protection against arbitrary dismissal, the minimum wage, unemployment insurance, tenth third wage, labor compensation overnight higher than the daytime, normal working hours not exceeding eight hours per day and forty four weekly, paid weekly rest, paid annual leave, maternity leave and paternity leave, freedom of association and organization, among other rights. Brazilian labor laws also prohibit discriminatory practices and define minimum of age of work.

Freedom of Association and Organization

Title V of the Labor Code allows employees of the same industry to form unions known as ‘employee syndicates’ though only one union is permitted for a given trade or occupation in each
area. In Brazil, workers normally affiliate with local or regional labor unions, and contribute one day of wages per year as a mandatory fee to the union. Unions establish collective bargaining agreements which set annual salaries, benefits and terms of employment within the framework of Brazilian laws and standards.

Retrenchment

Brazilian labor laws are very strict with regard to retrenchment requiring employers to actively inform and engage with workers and use best effort to provide alternative work opportunities, consistent with MIGA’s Performance Standard 2.

Occupational Health and Safety

Employers are required to reduce the risks inherent in the work, by standards of health, hygiene and security, and provide equal rights for permanent and contract workers. According to Brazilian legal requirements, employers are required to develop and implement a series of occupational health and safety (OHS) management programs, including: Medical Surveillance Program (PCMSO, Programa de Controle Médico e Saúde Ocupacional); Internal Commission for Prevention of Accidents (CIPA, Comissão Interna de Prevenção de Acidentes); Personal Protective Equipment (PPE) Program; and Environmental Risk Prevention Program (PPRA, Programa de Prevenção de Riscos Ambientais).

PS3: Pollution Prevention and Abatement

Risks and impacts associated with the proposed rehabilitation and construction works for roads and bridges include noise, air emissions, soil erosion and runoff, surface and ground water quality, waste, hazardous materials, and land acquisition. These risks and impacts are expected to be managed through generally recognized standard operating procedures, guidelines, and design criteria and mitigation measures provided in the ESMF and ESMPs.

Air and noise emissions during construction are expected to be limited in duration and extent. Air emissions will occur from fugitive dust generated from site clearance, demolition, material excavation and transport and general construction works; and gaseous emissions from operation of diesel powered asphalt plants, vehicles, heavy equipment and machinery. Measures to mitigate air emissions are provided in the air emissions management plan, as part of the ESMP. Periodic monitoring will be conducted (Component 2 of the WB program includes strengthening the capacity of the State Environmental Agency (CETESB) in air quality monitoring) to ensure that ambient air quality meets WBG EHS Guideline values or construction activities don’t further degrade existing ambient conditions.

The WB conducted a CO₂ emission analysis for the Project’s transport and logistics efficiency component. The analysis concluded that the Project will result in an overall net reduction in CO₂. While the road works from the State road rehabilitation subcomponent could increase emission, the bridge reconstruction subcomponent would offset the increase and further reduce the emission, through promoting modal transfer to inland waterway.

Minor, localized soil erosion and runoff risks and impacts to surface and ground water quality may result from site clearance, sub-grading, excavating, embankments and drainage infrastructure, bridge construction, and surface runoff from operation of quarries and asphalt plants. Measures to mitigate these impacts are provided in the ESMP. Periodic monitoring will be conducted.
Waste generated by construction activities includes construction waste, domestic solid waste and hazardous waste. Construction waste is expected to include concrete, asphalt, gravel, stone, inert materials, wood, metals, plastics, insulation, packaging, plasterboard/gypsum, earth and topsoil and vegetation. Domestic solid waste is expected to include food waste, sanitary waste, card and paper, packaging, plastics, and textiles. Hazardous waste is expected to include used engine oil, oily rags and empty containers. Measures to manage and reduce or mitigate general and hazardous wastes are provided in the waste management plan, as part of the ESMP. Contractors will be required to develop a waste inventory that details the different waste streams, classification, quantities, storage requirements, and potential use, and treatment and disposal arrangements.

Transport and handling of hazardous materials and hazardous waste will be in a manner consistent with legislation requirements. Risk and impacts related to accidents and spills of hazardous material during construction will be managed according to the spill prevention and response plan in the ESMP.

Pesticides/chemical products may be used sporadically for vegetation clearing under road maintenance works (theoretically, such cases should not occur as it will be specifically prohibited for works and services financed by the Project under the Operational Manual). A Pest Management Framework was prepared as part of the ESMF to manage any use of pesticides / chemical products. The prohibition of use of chemicals for the vegetation clearing under Component 1 will be incorporated in the Operating Manual.

PS4: Community Health, Safety & Security

The ESIA concludes that Rehabilitation and upgrading of the SoSPs transport networks through Component 1 is expected to generate significant positive social impacts. In addition to reduced transportation costs, the Project is expected to improve road safety, generate positive impacts on land values, create jobs, and raise incomes throughout the state. These positive impacts are expected to be further enhanced through the complementary interventions proposed under Components 2 and 3 designed to strengthen the State’s environmental and disaster risk management capacities.

To reinforce and sustain these positive impacts, the Environmental and Social Management Plan includes social communication, community participation, grievance redress and environmental education activities that will be implemented across the State.

Risks and impacts are related to noise and vibration, traffic safety and community health and safety. These risks and impacts are expected to be managed through Project design and mitigation measures provided in the ESMP.

Accident risks to communities from construction-related traffic and disruptions to normal traffic patterns are expected. Additional disruption is expected related to bridge construction, where temporary bridges adjacent to the existing bridges will be erected to accommodate traffic flow. Measures to promote traffic safety and mitigate traffic accident risks are provided in the ESMPs. Contractors will be required to develop construction traffic management plans. A procedure will be established for recording all construction related traffic accidents, and include accident investigation and corrective actions, as required.

Unarmed security personnel will be employed by construction contractors to restrict public access to construction works, staging and storage areas, as well as to protect construction equipment and machinery when not in use.
During operations, the DER-SP will continue to implement its standard feedback mechanism, which includes posting a call in number on signs along State roads allowing road users to directly telephone the DER-SP to report safety issues, road deficiencies and other issues.

**PS5: Land Acquisition & Involuntary Resettlement**

The ESIA for the initial WB component determined that the proposed civil works will require acquisition of 14 small strips of rural land (on average 0.139 hectares) and the relocation of 15 informal structures currently occupying the road right-of-way (ROW). A Resettlement Policy Framework (RPF) has been prepared for the Project that sets out the guidelines, procedures and criteria to avoid, minimize, mitigate and/or compensate any additional resettlement impacts that could potentially result from any eventual design modifications. Site specific Resettlement Plans consistent with MIGA and WB requirements will be prepared to mitigate specific adverse impacts for each initial road section.

The ESIA for the 12 new road sections indicates that with the exception of Section 11 (SP-129), as the majority of work is resurfacing and improving shoulders, only very limited acquisition of land will be required and no physical displacement will result from the road works. All road improvements have been designed to minimize impact on agricultural land and buildings. Commercial, industrial and residential buildings as well as agricultural fields have been identified in the vicinity of SP-129; however as the final design for the doubling of this road is not yet available, the extent of land acquisition and physical relocation has yet to be determined. Site Specific RAPs consistent with the RPF will be prepared for all sections of road requiring land acquisition and / or physical displacement. These will be shared with MIGA and WB, and disclosed on the WB Infoshop.

**PS6: Biodiversity Conservation & Sustainable Natural Resource Management**

By improving the efficiency of logistics in the State, the Project might strengthen agriculture industry in the State and beyond, other neighboring States, which in turn, might increase the pressure on native environment. Those potential impacts, assessed in detail in the ESIA, are however expected to be limited, particularly for Component 1, as most of the native vegetation in the State of Sao Paulo has already been disturbed by human activities and the State has strong regulation and enforcement capacity to maintain remaining vegetation, which will be further strengthened under the Project second component. Some of the road sections are adjacent to riparian areas that are considered, ‘Areas of Permanent Protection’ (Áreas de Preservação Permanente or APP). APPs provide habitat and breeding grounds for a variety of wildlife, though none of these areas have been identified as critical habitats or areas of conservation significance. Further, no vulnerable or endangered species were identified in the APPs near the proposed road sections. Road improvement activities near the APPs will be carefully managed to minimize the impact on APPs.

The ESIA addresses the safeguard requirements, screens out all subprojects resulting in any significant conversion or degradation of natural habitats, and includes provisions to regenerate and reforest degraded areas, as needed.

All activities will follow WB policies, identifying monitoring and management activities to prevent or mitigate any possible negative impacts. The proposed environmental activities will
comply with: (i) the Brazilian Forest Code; (ii) Brazilian legislation on protected areas (SNUC - Law 9985 of 2000, Decree 4340 of 2002 and Decree 5758 of 2006; (iii) national, State, and local laws on natural habitats; and (iv) the principle of enforcement measures, to be effective, should be accompanied by social measures, including communication strategy, or incentives with landowners or communities.

F. Environmental Permitting Process and Community Engagement

According to Brazilian and SoSP legislation, the process of environmental licensing in the state of Sao Paulo requires only the simplified environmental licensing for works that are limited to the rights of way of highways in operation (as is the case for the majority of Project works). In this modality, the studies needed are prepared to obtain specific environmental permits, as in cases where the works will occur in APPs, when it will be necessary to remove vegetation that is not in the initial stage of regeneration or when there are interventions that significantly affect water resources (e.g. diversion of watercourses). For vegetation removal, the permit is usually conditioned to repairing the environmental damage caused, through planting seedlings. The works of rebuilding the bridges also require only the simplified environmental licensing, but some special studies may be requested, whose complexity will be proportional to the constructive method chosen and the level of impact to the river and its banks. Despite this, ESIAs consistent with MIGA and WB standards have been prepared for the sections of road to be upgraded and for the bridges to be constructed. These ESIAs will be used to obtain required permits, where necessary.

The ESIAs for the road sections included in the existing WB loan agreement were discussed during public consultations at the DER-SP office in Sao Paulo on December 12, 2012. Further, more than 70 government agencies, private sector groups and civil society organizations were invited to review the ESIA and provide comments. Consultations were also held with FUNAI – Brazil’s National Indian Foundation – to assess the appropriateness of the Indigenous Peoples Planning Framework (IPPF). Key recommendations regarding institutional responsibilities, access to project products and benefits, and road safety issues were received and integrated into the project design and impact management plans. Additional public consultation on the ESIAs for the new road sections will be held in early 2014, once the ESIAs have been publicly disclosed.

G. Availability of Documentation

The following listed documentation is available electronically as a PDF attachment to this ESRS at www.miga.org, and at the World Bank InfoShop (http://www.worldbank.org/infoshop):

- **Complementary Environmental and Social Impact Assessment: Avaliação de Impacto Social e Ambiental (AISA) - Complementar** (for additional roads) – December 20, 2013
- **Environmental and Social Impact Assessment: Avaliação de Impacto Social e Ambiental (AISA)** (for initial World Bank Component 1 of 280 km of road) – final version of January 23, 2013

This information is also available at:
• SoSP DER website (http://www.der.sp.gov.br/website/Home/#, available on the tab “Malha Rodoviária” – Report: “Programa de Transporte, Logística e Meio Ambiente”)
• SoSP DER disclosure of the Complimentary ESIA: