Environmental and Social Review Summary (ESRS)
Route 10 PY 10 Consorcio Avanza Lote 2 - PARAGUAY

Original language of the document: Spanish
Date of issuance: August 2026

1. General Information on the Project and the Scope of the IDB Invest Environmental and Social Review (ESRS)

In 2025, Paraguay's Ministry of Public Works and Communications ("MOPC") awarded the Avanza Ruta 10 Consortium (the "Concessionaire," the "Company," or the "Client"), comprising Tecnoedil S.A. Constructora, Construpar S.A., and OCHO A S.A., a 24-month contract for the rehabilitation and paving of the San Cristóbal–Paso Yobái section (Lot 2) of National Route PY10, located in the departments of Alto Paraná, Caazapá, and Guairá (the "Project"), which includes: i) the rehabilitation and asphalt paving of 63.94 km of the section between San Cristóbal and Paso Yobái; and ii) the improvement of 15.81 km of urban roadways in the towns of Tuparenda, Tuna, San Agustín, Mangrullo, and Paso Yobái.

For construction purposes, the Project has been divided into the following subsections: i) Rural Zone 3 (29+900 to 39+020); ii) San Agustín Bypass (39+020 to 42+440); iii) Rural Zone 4 (42+440 to 44+460); iv) Mangrullo Bypass (44+460 to 47+760); v) Paso Yobái Bypass; vi) San Agustín Crossing (PY 0+000 to 3+480); vii) Paso Yobái Crossing (PY 0+000 to 1+950); and viii) Mangrullo Crossing (PY 0+000 to 3+250).

The Project will generate significant economic and social benefits by improving connectivity, logistics efficiency, and road safety along a strategic regional corridor in eastern Paraguay, reducing travel times and vehicle operation costs, and enhancing the profitability of agricultural and industrial production in the departments of Guairá, Caazapá, and Alto Paraná.

The Project's final engineering design includes a new alignment that allows for the redesign of urban crossings, improved road safety, the separation of regional traffic from local traffic, a reduction in heavy traffic entering population centers, and the optimization of connectivity between the new alignment and urban areas. Likewise, the paving of major thoroughfares will improve internal traffic flow and reduce the risk of accidents. In this regard, the main interventions include: i) Paso Yobái: paving of Leontine González Street, from its intersection with the current Route PY10 to its connection with the new corridor, in addition to the improvement of an urban section of the existing route; ii) Mangrullo: paving of the main streets that make up the town's central axis, including the current Route PY10 and Line 14, up to their connection with the new axis; and iii) San Agustín: work on the central urban axis, which somewhat coincides with the current Route PY10, and construction of a branch road providing a direct connection to the new main route.

The environmental and social due diligence ("ESDD") process included, among other aspects, a site visit to the Project; interviews and meetings with the Company's environmental, social, and real estate management personnel; and a review of the environmental and social ("E&S") and occupational health and safety ("OHS") information provided by the Client, including: i) the Environmental Impact Study ("EIS") for the Asphalt Paving Works on the Paso Yobái-San Agustín-Tuna section, approved by Environmental Impact Declaration ("EID") DGCARN No. 2652 of 2016; ii) the Socio-Environmental Action Plan ("PASA") for the Project; iii) the Evaluation of Route Alternatives; iv) the risk assessment; v) the Contingency and Emergency Plan; vi) the Stakeholder Mapping; and vii) the Matrix of Environmental Licenses and Permits.

To ensure the Project's commitment to respecting and protecting human rights, its zero-tolerance policy toward retaliation, and its dedication to providing and guaranteeing a safe environment in which stakeholders can express their concerns without fear of retaliation, the DDAS process also included a review of the following documents: i) Coexistence Manual and Code of Conduct; ii) Mechanism for Receiving Questions, Complaints, Claims, and Requests for Information; and iii) Local Workforce Hiring Program for the Project.

2. Environmental and Social Classification and Justification

In accordance with IDB Invest's Environmental and Social Sustainability Policy, the Project has been classified as Category B because it may generate, among others, the following impacts and risks during the construction phase: i) noise; ii) particulate matter emissions; iii) increased vehicular traffic; iv) temporary disruptions to access; v) minimal property impacts; and vi) alteration of vegetation cover and natural habitats. These impacts and risks are estimated to be of medium-to-high intensity.

The Performance Standards ("PS") triggered by the Project are: i) PS1: Assessment and management of environmental and Social risks and impacts; ii) PS2: Labor and working conditions; iii) PS3: Resource efficiency and pollution prevention; iv) PS4: Community health and safety; v) PS5: Land acquisition and involuntary resettlement; and vi) PS6: Biodiversity conservation and sustainable management of living natural resources.

3. Environmental and Social Context

3.1 General Characteristics of the Project Site

The project area is located in the Central Forest Ecoregion, which is part of the Upper Paraná Atlantic Forest ecological complex. The area is characterized by a predominance of agricultural crops (primarily yerba mate, soybeans, and cassava), livestock activities, rural settlements, expanding suburban and urban areas, and some remnants of native forest, riparian forests, wetlands, and surface water systems. The sector is home to rural residents, agricultural producers, local merchants, regular road users, neighborhood committees, sanitation boards, educational institutions, chapels, religious organizations, and sports and community facilities. The prevailing climatic conditions are those of a warm and humid environment, characterized by high temperatures for much of the year and relatively evenly distributed rainfall.

In the area adjacent to the Project, gold mining activities are carried out by formal organizations that hold mining titles. The Project will not affect any of the deposits currently in operation, although it will cross land with active mining titles.

3.2 Contextual Risks

The major contextual risk is associated with violence and insecurity in areas far from urban centers, which can endanger workers' safety or result in theft or damage to equipment and machinery.

In terms of gender, notable gaps exist in women's representation, inclusion, and health. In the context of the project, these risks result in lower female participation in local decision-making processes, in employment related to the project, and in promotion opportunities, as well as greater exposure to differentiated social impacts. According to data from the Gender Atlas, published by Paraguay's National Institute of Statistics, at the national level in 2023, 31.20% of women over the age of 15 had no income of their own, compared to 11.50% of men, maintaining a gap of 19.70%.

4. Environmental Risks and Impacts, and Proposed Mitigation and Compensation Measures

4.1 Assessment and Management of Environmental and Social Risks and Impacts

4.1.a Environmental and Social Management System

The Client has an EIA and a contractual Environmental and Social Action Plan (PASA) that includes specific plans, procedures, compliance matrices, indicators, records, and processes for monitoring, auditing, and controlling contractors and subcontractors. However, the Client will develop and implement an Environmental and Social Management System ("ESMS") consisting of: i) a policy; ii) procedures for identifying risks and impacts; iii) management programs; iv) the required organizational capacities and competencies; v) emergency preparedness and response protocols; vi) a stakeholder engagement plan; vii) protocols for external communication and complaint mechanisms; viii) requirements for ongoing reporting to affected communities; and ix) monitoring and review procedures.

4.1.b Policy

The Client shall develop and adopt an Environmental and Social policy that ensures compliance with all applicable laws and regulations, both locally as well as internationally. It shall also implement an effective communication plan to disseminate its Environmental and Social policy throughout all levels of the organization, including contractors, subcontractors, suppliers, and other internal and external stakeholders of the Project.

4.1.c Identification of Direct and Indirect Environmental and Social Risks and Impacts

The Project has a DIA, granted based on the original EIA, which identified the following environmental and Social risks and impacts associated with the Project's original route: i) noise and vibrations; ii) particulate matter; iii) gaseous emissions; iv) soil or surface water contamination with hydrocarbons; vi) physical and economic displacement of communities.

The Client is finalizing a Preliminary Environmental Impact Assessment ("EIA-p"), which identifies, for the design and construction phases of the new Project route, the associated direct and cumulative Environmental and Social risks and impacts, the management of which will be summarized in an Environmental Management Plan. The P-EIA will also assess the risks and impacts of ancillary facilities (quarries, borrow areas, access roads to borrow areas, camps, storage yards, and workshops), as well as identify existing environmental liabilities within the Project's area of influence.

4.1.c.i Analysis of Alternatives

The Client has conducted an analysis of alternatives in which it compares the existing route (Alternative 1) with a modified new route (Alternative 2) and justifies the selection of the recommended alternative based on the reduction of critical social impacts. In particular, the new route: i) allows for greater avoidance of direct impacts on homes, businesses, community facilities, local economic activities, and established urban areas; ii) reduces the risk of involuntary resettlement, loss of livelihoods, social conflict, and the population's exposure to heavy traffic; and iii) helps improve road safety by separating long-distance regional traffic from local traffic patterns.

4.1.c.ii Cumulative Impacts

The Project's EIA-p provides a limited assessment of cumulative impacts; therefore, the Client will prepare and incorporate a Rapid Cumulative Impact Assessment ("RCIA"), following the methodology of the Practical Guide for the Assessment and Management of Cumulative Impacts in Latin America and the Caribbean (IDB Invest, 2023) or a similar guide.

4.1.c.iii Gender Risks

The major gender risks identified in the Project's area of influence are associated with the presence of external workers and the establishment of camps in rural areas. The updated EIA-p will include a Gender Risk Analysis for the Project's construction phase.

4.1.c.iv Gender Programs

The Client has a "Workplace Harmony Manual and Employee Code of Conduct," in which it sets forth its commitment to an inclusive work environment free from any form of discrimination. However, based on the Gender Risk Analysis, the Client will prepare a Gender Management Plan that will include: i) specific measures to manage the identified gender risks; ii) the mandatory application of the Code of Conduct to all personnel, including contractors and subcontractors; iii) ongoing training requirements aligned with the awareness-raising sessions on violence against women and the prevention of social risks that are expected to be included in the Project's institutional strengthening programs; and iv) strategic actions aimed at maximizing the Project's benefits for local women, promoting their effective participation as well as their role as workers and service providers within the framework of regional economic revitalization.

4.1.c.v Exposure to Climate Change

The Project faces physical risks related to climate and future climate changes, specifically associated with droughts and heat waves, leading to an intensification of water scarcity. For Paraguay, average monthly temperatures are projected to increase by 2 °C by the 2050s and by 4 °C by the end of the century under a high-emissions scenario (RCP8.5), with the greatest impact in the northeast of the country, along the Paraguay River basin.

The intensification of climate phenomena, as well as heat waves, has a long-term impact on the durability and maintenance of structures and pavement. In addition, the health of workers involved in construction and maintenance operations may be affected by extreme temperatures.

The Client will update the Project Contingency Plan to include a climate risk analysis and appropriate adaptation measures.

4.1.d Management Programs

The PASA, which establishes measures for managing the Project's environmental and Social risks and impacts during the construction phase (to be supplemented in the EIA-p), consists of the following programs: i) Social Management; ii) Biodiversity Management; iii) Environmental Management during the construction phase; iv) Industrial Safety and Occupational Health; and v) Contingency and Emergency Plan. The EIA-p complements the PASA with the following programs: i) Mitigation of Indirect Impacts; and ii) Control and Monitoring.

4.1.e Organizational Capacities and Competencies

The Client's organizational structure is headed by the Consortium's legal representatives and the Superintendent of Works, under whose coordination the functions of environmental management, social management, Occupational Health and Safety, and field supervision are organized. The organizational chart identifies the environmental manager, social manager, and OSH manager as key positions, each with specific technical support. Additionally, the Client receives environmental, social, and occupational safety and health support from Project Consulting, as well as support from Métrica Ingeniería for matters related to land acquisition and resettlement.

4.1.f Emergency Preparedness and Response

The Project has a Contingency and Emergency Plan, which has as its objective to establish safety procedures in the event of incidents or accidents that could endanger the physical well-being of on-site personnel, through rapid response measures, immediate medical assistance, and the formation of an emergency response team.

4.1.g Monitoring and Evaluation

The Client has an organizational structure that includes managers in the areas of Environment, Occupational Safety and Health, and Social Affairs, all of whom have been involved in mobilization since the pre-construction phase.

External oversight, as well as monitoring of the project's socio-environmental implementation, is the responsibility of an external audit firm contracted by the MOPC, whose performance in Environmental and Social matters is supervised by the Directorate of Socio-Environmental Management ("DGSA").

4.1.h Stakeholder Engagement

The PASA includes a Stakeholder Communication and Road Corridor Clearance Program, designed to establish appropriate engagement with people in the area of influence, road users, and other stakeholders, covering the different phases of the construction process. The document presents an initial categorization of stakeholders (neighborhood committees, rural residents, producers, and educational institutions) and provides for the establishment of a communication framework, as well as the identification of local leaders.

4.1.h.i Information Dissemination

The Client uses multiple channels to disseminate information in accordance with connectivity conditions in rural areas: local radio stations, participatory workshops with producers and neighborhood committees, and the distribution of educational materials.

The Mechanism for Questions, Complaints, Claims, and Requests for Information ("PQRS") serves as a gateway to information by providing in-person service centers at the contractor's job site and in municipal offices, as well as digital forms, to process requests from stakeholders.

4.1.h.ii Informed Consultation and Participation

As part of the process to obtain approval of the Preliminary EIA (EIA-p) from the Ministry of the Environment and Sustainable Development ("MADES"), the Client will carry out various public participation activities. Through this process, the Client will allow the interested public and those potentially affected by the Project to formally submit comments, observations, or objections regarding the Project, its potential socio-environmental impacts and risks, and the proposed measures for their management.

The PASA Stakeholder Communication and Right-of-Way Clearance Program includes, among other actions, door-to-door visits and informational meetings with communities, as well as widespread dissemination of information through brochures, informational flyers, posters, a dedicated phone line, and email.

4.1.h.iii Indigenous Peoples

The Client did not identify any indigenous communities within the Projects' direct and indirect areas of influence that could be materially and negatively affected.

4.1.i External Communications and Grievance Mechanism

4.1.i.i External Communications

The Client has in-person, telephone, digital, and institutional communication channels, as well as a procedure that defines response times based on priority, the opening of an individual case file with an identification number, the recording of needs on a tracking form, the forwarding of needs to the responsible departments, and their periodic inclusion in monthly social reports.

4.1.i.ii Complaint Mechanism for Affected Communities

The Projects' PASA establishes the mechanism for handling PQRS.

The social affairs manager of the Engineering, Procurement, and Construction (EPC) Contractor is responsible for collecting complaints and recording them in the complaint tracking and monitoring form; PQRS are subsequently forwarded to the site superintendent and the supervision team, who, in turn, distribute the complaints to the appropriate departments for resolution. The Client will also establish a Stakeholder Service Center at the construction site.

The Client shall detail the procedure by which it will handle complaints of sexual harassment filed by the community against subcontractor workers, in order to ensure the joint and several liability of the consortium.

4.1.i.iii Provisions for Addressing Complaints from Vulnerable Groups

The Client's PQRS mechanism provides printed forms and in-person service centers at the construction sites to ensure that groups with limited access to technology can file their needs.

4.1.i.iv Reports to Affected Communities

The communication and social engagement strategy designed by the Client focuses on keeping the public informed about the Project's progress. Through an institutional coordination structure, the Consortium ensures that the communities of Abaí and Paso Yobái receive detailed information on the project phases (earthwork, drainage, and paving) and their implementation schedule, allowing residents to adapt in a timely manner to changes in local dynamics.

4.2 Employment and Working Conditions

4.2.a Working Conditions and Labor Relations Management

4.2.a.i Human Resources Policies and Procedures

The Project complies with the provisions of Paraguay's Labor Code. Its Workplace Handbook and Code of Conduct establish the values and standards of behavior applicable to workers, promoting a safe, respectful, and discrimination-free work environment, as well as the rights and responsibilities of employees, including aspects related to mutual respect, equal opportunity, and non-discrimination. They also establish disciplinary measures applicable in the event of noncompliance, as well as for direct employees and subcontractors.

4.2.a.ii Working Conditions and Terms of Employment

The Project's human resources management is based on local regulations, which establish the Regulatory Framework for relations between employers and workers, emphasizing the subordinate and remunerated performance of work under conditions that ensure the dignity, life, and health of workers. The Project's Coexistence Manual and Code of Conduct define measures aligned with local regulations; however, the Client will establish a specific procedure for the recruitment, selection, orientation, rotation, promotion, and termination of workers, which includes guidelines for the protection of workers and the proportionality of sanctions.

The Coexistence Manual sets forth basic guidelines for coexistence and camp infrastructure, including the segregation of dormitories and sanitary facilities by gender, as well as restrictions related to the carrying of weapons, hunting and fishing, and the consumption of alcohol and drugs within the Project's facilities. In addition, the Medical Surveillance and Assistance System includes measures aimed at monitoring hygiene and health conditions at these facilities. The Client will include in the Manual a Camp Management Procedure that consolidates the applicable operational criteria, responsibilities, inspection routines, and monitoring mechanisms.

Currently, the Project has 43 workers, 21 of whom are directly employed, while the rest are subcontractors; all individuals are insured through the Social Security Institute (IPS); the maximum number of people involved is estimated to be 200. Of the total number of people involved, 2 are women.

4.2.a.iii Labor Organizations

The Client recognizes the right to freedom of association and to form organizations for the defense of professional interests. There are currently no unions.

4.2.a.iv Non-Discrimination and Equal Opportunity

The Client's Code of Conduct strictly prohibits any form of discrimination based on race, color, sex, religion, or political opinion. The Local Workforce Hiring Program, which is part of PASA, establishes proactive measures to promote the inclusion of women and members of indigenous communities in the area of influence.

4.2.a.v Workforce Reduction

The Client will develop and formalize a Workforce Demobilization Plan for the gradual reduction of the number of direct and subcontracted workers upon completion of the works.

4.2.a.vi Complaint Handling Mechanism

The Client has a "Mechanism for Receiving Environmental and Social Inquiries, Complaints, Claims, and Requests for Information (PQRS) for Employees, Contractors, and Key Suppliers," applicable to the entire Project workforce. This mechanism provides multiple channels for receiving inquiries and complaints, as well as guarantees of confidentiality, anonymity (where applicable), and protection against retaliation.

The Client will define and adopt a specific protocol within the Project's complaint mechanism for receiving, addressing, and following up on reports related to harassment, discrimination, gender-based violence, and other conduct inconsistent with the Code of Conduct.

4.2.b Protection of the Workforce

The Project has a Medical Monitoring and Assistance System that ensures immediate response to incidents and constant monitoring of hygiene conditions at the construction sites. In addition, the Risk Prevention Policy is reinforced through ongoing training and the mandatory use of Personal Protective Equipment ("PPE"), as detailed in the operational risk matrix designed for the execution of the construction work.

4.2.b.i Child Labor and Forced Labor

The Client complies with local regulations prohibiting child labor and any type of unpaid labor (slave labor).

4.2.c Occupational Health and Safety

The Project has an Occupational Safety, Hygiene, and Occupational Health and Safety Plan; an Environmental and Occupational Health and Safety Training Program; a Medical Surveillance and Assistanc ; and a Contingency and Emergency Plan. These instruments include preventive measures, worker orientation, mandatory use of PPE, signage, night work, alcohol testing, preventive medicine, accident and incident investigation, first aid, emergency response, and on-site verification checklists.

However, the Client shall establish an Occupational Health and Safety Management Plan for the construction phase, which shall include: i) a definition of responsibilities and lines of supervision; ii) the identification and control of occupational hazards; iii) operational controls for high-risk activities; iv) requirements for the management and supervision of contractors and subcontractors; v) training and orientation programs; vi) procedures for reporting, investigating, and closing out incidents and accidents; and vii) performance indicators and monitoring mechanisms for the continuous improvement of the OSH system.

4.2.d Provisions for People with Disabilities

The Coexistence Manual and the Client Code of Conduct set forth guidelines for the inclusion of people with disabilities, as well as for the management of staff based on the principles of equality, dignity, and the prohibition of any discriminatory act based on social status or physical appearance.

4.2.e Third-Party Contractors

The Client will develop and implement a procedure for the management and supervision of third parties, including hiring criteria, mechanisms for monitoring work performance, and contractual provisions establishing obligations regarding working conditions, Occupational Health and Safety, and the prevention of child and forced labor.

4.3 Efficient Use of Resources and Pollution Prevention

4.3.a Efficient Use of Resources

The Client will develop a Program to Promote the Efficient Use of Natural Resources, primarily focused on the reuse of construction materials and water, and the reduction of emissions from the transportation of materials and fuel consumption, among other measures. These programs will be extended to contractors and subcontractors.

4.3.a.i Greenhouse Gas

The Client shall submit an estimate of Greenhouse Gas (“GHG”) emissions associated with fuel consumption, earthmoving, material transportation, the operation of industrial plants, heavy machinery, and asphalt mix production.

4.3.a.ii Water Consumption

The Project does not involve the direct collection of surface water for construction activities, but rather the use of rainwater catch basins or reservoirs. To supply water to the camp, the construction of underground wells is planned. Given the presence of gold mining activities in the vicinity of Lot 2 and the potential risk of impact on aquifers, the Client will conduct a preliminary characterization of groundwater quality prior to its use, especially if it is intended for human consumption or domestic use. The monitoring will consider not only standard potability parameters but will also prioritize parameters associated with gold mining (total mercury, free and total cyanide, arsenic, lead, cadmium, zinc, among others).

4.3.b Pollution Prevention

The Project's Environmental and Social Action Plan (PASA) defines management measures to control the generation of particulate matter, dust, noise, and vibrations[1] .

The EIA-p contains a baseline for noise and particulate matter. The average noise levels recorded did not exceed the daytime limit used as a reference by local regulations. However, the EIA-p recorded occasional exceedances for particulate matter smaller than 2.5 micrometers ("$PM_{2.5}$") and particulate matter smaller than 10 micrometers ("PM_{10}"), primarily associated with vehicle traffic on dry dirt roads. The Client will ensure that measures to control particulate matter prevent any further increase beyond what was reported in the Baseline.

The Project also calls for the installation of an asphalt plant and fuel storage sites within the camp or construction site, located on rural land leased for the Project's construction phase. Since no information is currently available on the environmental quality of the site, the Client will conduct an air and soil quality monitoring campaign prior to the start of activities and during the construction phase.

Wastewater from toilets will be collected and disposed of by authorized companies.

4.3.b.i Waste

The PASA includes measures for the segregation, storage, and disposal of non-hazardous and hazardous waste. To this end, the Project will have secure temporary storage facilities, licensed operators, odor controls, disposal certificates, and contingency measures in case of overflows or spills.

The Client will update the PASA with information on the legally authorized companies that will be contracted for the management and final disposal of waste.

4.3.b.ii Hazardous Materials Management

Measures for the handling of fuels, oils, lubricants, and chemicals are described in the PASA. These include storing these products in impermeable areas, using hydrocarbon separators and portable drip pans, prohibiting the discharge of these compounds onto the ground or into bodies of water, immediately reporting spills, using absorbents, recording spills, labeling substances, ensuring the availability of safety data sheets, and the inventory of chemicals.

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[1] The measures include periodic watering of construction sites, access roads, and exposed surfaces; cleaning of access and exit routes; speed control for vehicles and machinery; protection of stockpiles from wind; preventive and corrective maintenance of equipment; vehicle emissions certifications; a ban on waste burning; operator training; use of mufflers on compressors and generators; restrictions on the use of horns; control of noisy equipment during nighttime hours; addressing community complaints; and bimonthly noise monitoring with a calibrated sound level meter.

4.3.b.iii Pesticide Handling and Use

The project does not call for the use of pesticides.

4.4 Community Health and Safety

4.4.a Community Health and Safety

The project will be carried out primarily in rural and semi-urban areas, with a focus on the implementation of bypasses in the towns of San Agustín, Mangrullo, and Paso Yobái, as well as the improvement of their urban thoroughfares. The identified socio-environmental risks and impacts are primarily associated with the implementation of temporary detours, increased freight and heavy machinery traffic, and the generation of particulate matter, noise, and vibrations. Additionally, risks are anticipated due to restricted access to properties and businesses, the conduct of nighttime work, the risk of traffic accidents (pedestrian strikes), and critical interventions on bridge structures and drainage systems.

4.4.a.i Infrastructure and Equipment Design and Safety

The Project's PASA includes measures for traffic management and operational safety, particularly in urban areas and school zones. However, the Client will develop a Community Health and Safety Plan that includes: i) traffic management measures; ii) sensitive groups; iii) the exposed population; iv) transportation routes; v) accident hotspots; vi) school zones; and vii) access points to corn and soybean collection facilities, as well as specific measures for each section.

4.4.a.ii Hazardous Materials Management and Safety

The PASA includes a Program for the Management of Liquid Waste, Fuels, Oils, and Chemicals, as well as a Program for the Use and Handling of Explosives, should the use of the latter be required. However, the focus is primarily on preventing pollution and protecting site personnel, without sufficiently addressing risks to third parties. That said, the Client will include in the Community Health and Safety Plan community-focused operational procedures for managing hazardous materials, including authorized routes, schedules, signage, advance notice, exclusion zones, training for transporters, coordination with authorities, emergency kits, response protocols, and notification to communities.

4.4.a.iii Ecosystem Services

The Project does not anticipate any significant negative impacts on ecosystem services.

4.4.a.iv Community Exposure to Disease

The risk of community exposure to disease is preliminarily considered low to moderate, given that the workers' camp will be located outside of towns or populated centers and that its establishment will be subject to the corresponding environmental approval.

4.4.a.v Emergency Preparedness and Response

The Project has a Contingency and Emergency Plan that establishes procedures for responding to incidents and emergency situations during the construction phase. However, the Client will amend the Plan to include community scenarios, maps of sensitive receptors, external communication protocols, coordination with local authorities, drills, evacuation routes, assembly points, and mechanisms for prioritizing care for vulnerable groups, integrating it into the ESMS and the PGAS.

4.4.b Security Personnel

The security companies to be contracted by the Concessionaire to perform basic surveillance tasks will be trained and licensed by the relevant authorities. These personnel will not be armed and will be subject to a Code of Conduct governing their behavior toward surrounding communities.

4.5 Land Acquisition and Involuntary Resettlement

4.5.a General Aspects

4.5.a.i Project Design

During the review of the project's engineering design, the client prioritized the adoption of an alternative route with the explicit objective of reducing impacts on existing homes and infrastructure, estimating that five structures would require relocation (compared to more than 100 under the original route).

4.5.a.ii Compensation and Benefits for Displaced Persons

The Ministry of Public Works and Communications (MOPC) is responsible for registering families and economic units affected by road projects, but this task may be carried out by technical teams, contractors, or consulting firms formally associated with the Project. In the case of properties subject to expropriation for the right-of-way, the process is formalized by notifying the affected party (specifying the area to be expropriated), conducting an assessment, and providing the opportunity to comment, reconsider, or challenge the decision, in accordance with the procedure expected in local regulations.

Compensation is determined based on fair market value, through a valuation of the property and any improvements at market price (plus 10% if the owner accepts the compensation offer for the affected property). The affected area is determined through a cadastral survey in accordance with the layout of the right-of-way.

The Client hired the firm Métrica Ingeniería to conduct the survey and the socioeconomic registration of those affected, which will serve as the basis for the valuation of the areas. Following the appraisal, the affected party may express agreement or request a reconsideration from the MOPC; once the procedure is completed, the MOPC issues the Ministerial Resolution, approves the fair price and the appraisal, and payment may be made either by mutual agreement or through the courts. Payments are made by the MOPC through the contractor, who reports on them via its operational and financial reports.

4.5.a.iii Community Participation

The Client will develop an Involuntary Resettlement Plan ("PRI") in collaboration with the Projects' stakeholders. The disclosure of relevant information and the participation of affected communities and individuals will continue throughout the planning, implementation, monitoring, and evaluation of compensation payments.

4.5.a.iv Grievance Mechanism

The Client will include in the PRI a mechanism for addressing specific concerns regarding compensation and relocation raised by displaced persons or members of host communities, as well as a mechanism for filing appeals, designed to resolve disputes impartially.

4.5.a.v Planning and Implementation of Resettlement and Livelihood Restoration

To date, the alternative route has not been found to have any confirmed direct impacts that would require large-scale involuntary resettlement of a significant scale. However, the Client will develop a Resettlement Implementation Plan (RIP) that will include: (i) eligibility criteria; (ii) procedures for compensation or restitution at replacement cost; (iii) the handling of temporary and economic impacts; and (iv) provisions for occupants, tenants, and vulnerable groups.

4.5.b Displacement

4.5.b.i Physical Displacement

The Client has estimated that five structures would need to be relocated to allow for the Project's implementation.

4.5.b.ii Economic displacement

The Client will assess the risks of economic displacement associated with the physical resettlement of the five identified structures. In the event of impact, the Client will include measures for the Restoration of Livelihoods in the PRI.

4.5.c Private-sector responsibilities in government-managed resettlement

The MOPC has legal responsibility for expropriations, and the Client is responsible for the technical implementation of the registration of affected families and the survey of improvements and infrastructure.

The Client assumes responsibility for monitoring and evaluating the implementation of the PRI, ensuring that field activities and communication with affected people are carried out in accordance with the Project's socio-environmental guidelines and international safeguard requirements.

4.6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

4.6.a General Requirements

As well as the Project's EIA-p, the Client has prepared a Rapid Ecological Assessment ("REA"), which presents a simplified analysis of route alternatives and identifies risks to vegetation cover, wildlife, habitats, and ecological corridors.

4.6.b Biodiversity Protection and Conservation

Within the Project's area of influence, riparian forests, wetlands, and remnants of native forest have been identified; these are embedded within a productive land-use matrix and subject to fragmentation and pressure from land-use change. The REA estimates an approximate impact of 36 hectares of forest cover and 3,096 individual trees.

As a compensation measure, the Project provides for forest restoration at a ratio of 3:1 (three trees planted for every tree affected), applicable only to individual trees, but without providing for compensation for impacts on the ecosystem as a whole or on non-forest natural habitats. The PASA also does not provide for the rescue and relocation of germplasm, an activity that will be carried out during vegetation clearing for the construction of the new road, as well as a means of preventing and minimizing impacts on the flora. The Client will include specific measures in the Biodiversity Action Plan to manage these risks and impacts.

The EIA-p Control and Monitoring Plan includes a Wildlife Monitoring Program, which calls for the following: (i) a wildlife survey aimed at characterizing wildlife and identifying sensitive areas, including potential wildlife crossings; and (ii) twenty-four patrols to monitor roadkill along the Project route. The preliminary wildlife study and analysis will help determine the locations where any required wildlife crossings would be constructed.

4.6.b.i Modified Habitat

Within the Project's area of influence, riparian forests, wetlands, and remnants of native forest have been identified; these are embedded within a productive matrix and subject to fragmentation and pressure from land-use change. The Project's main impacts will occur in agricultural production areas and semi-urban areas.

4.6.b.ii Natural Habitat

The EIA-p's Environmental Impact Assessment (EIA) generally reports the presence of sensitive areas, defined as remnants of natural forests as well as areas subject to temporary flooding. In this regard, the Client will conduct a biodiversity analysis and identify, if any, natural and critical habitats.

The Client will prepare a Biodiversity Management Plan ("BMP") that includes management measures for the identified risks and impacts and prioritizes reductions in the width of the right-of-way in sectors with native vegetation, with the objective of reducing the loss of vegetation cover and habitat fragmentation. In the event that the Project materially affects natural habitats, the measures contained in the PGMB will ensure zero net loss of biodiversity.

4.6.b.iii Critical Habitat

If the existence of critical habitats is confirmed, the Client will prepare a Biodiversity Action Plan with measures consistent with the impact mitigation hierarchy and aimed at achieving a net gain in biodiversity for the critical habitat triggers.

4.6.b.iv Legally Protected and Internationally Recognized Areas

The Project does not overlap with protected wilderness areas, and none of these areas are located within its direct or indirect area of influence.

4.6.b.v Invasive alien species

The Project will not include invasive alien species in its forest offset activities.

4.6.c Ecosystem service management

The EIA-p identified several ecologically significant areas along the route and incorporated measures designed to avoid or minimize interventions in the ecosystems that support these services. Management measures include restrictions on the development of borrow pits in environmentally sensitive sites, erosion control and revegetation of degraded areas, protection of natural habitats, and maintenance of ecological corridors for wildlife.

4.6.d Sustainable Management of Living Natural Resources

The Project does not involve the primary production of living natural resources.

4.6.e Supply Chain

The Project does not involve the purchase of primary production (fibers, timber, animals and animal products, as well as other raw materials for subsequent processing or marketing).

4.7 Indigenous Peoples

4.7.a General Aspects

There is no evidence of the presence of indigenous communities within the Project's direct or indirect area of influence that could be materially and negatively affected by the proposed works.

4.8 Cultural Heritage

4.8.a Protection of cultural heritage in the Project design

There are no records of sites or infrastructure of high cultural value within the Project's area of influence.

4.8.a.i Procedures in the Event of Unplanned Discoveries

Although the probability of encountering unplanned discoveries during the construction of the Project is low, the Client will prepare and implement a protocol for responding to unplanned discoveries, which will be available on-site and communicated to both in-house and contracted field personnel through specific training sessions.

5. Local Access to Project Documentation

Project documentation can be accessed at the following links: https://mopc.gov.py/seamoo9eib8eefou3ooze4y/PY10