

Environmental and Social Review Summary (ESRS) Rumichaca-Pasto Highway Project - COLOMBIA

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1. General Information of the Project and Overview of Scope of IDB Invest's Review

The Rumichaca-Pasto highway (the "Project") is part of the fourth generation of public-private partnership projects encouraged by the government of Colombia through its National Infrastructure Agency ("ANI"). The Project, stretching out for 83 km and operated by Concesionaria Vial Unión del Sur ("CVUS" or the "Concessionaire"), is located in the Department of Nariño to the southwest of Colombia and connects the international bridge in Rumichaca, at the Ecuadorian border, with the city of Pasto.

The Project involves i) refurbishing 15.7 km between Rumichaca and the San Juan Corregimiento in Ipiales; ii) building 62.1 km of a double lane highway between the San Juan and Catambuco Corregimientos (25 km of brand-new roadway between San Juan and Pilcuán Viejo); and iii) improving 5.2 km of roadway in the Catambuco-Pasto stretch.

The Project will be executed in five functional units ("FU"): i) FU 1 is 24.66 km long and stretches between Rumichaca and Contadero; ii) FU 2 is 12.27 km long and links Contadero and Iles; iii) FU 3 is 7.20 km long and connects Iles with Pedregal; iv) FU 4 is 15.75 km long and extends between Pedregal and Tangua; and v) FU 5 is 22.18 km long and extends between Tangua and Pasto.

The Project was launched in 2017 and is expected to finish in 2022; as of June 2021, about 91% of it has been completed.

The scope of the environmental and social due diligence ("ESDD") included the analysis of the information and documents provided by the Concessionaire, such as: i) the environmental impact assessments ("EIAs") for FU 1.3, FU 2, FU 3, FU 4, and FU 5; ii) the adaptations of the environmental guidelines ("PAGA") for FU 1.1 and FU 1.2; iii) the information from the original ESDD; iv) the reports for the eight environmental and social ("E&S") monitoring events carried out by Mott McDonald, a third-party environmental and social consultant ("CASI") for the Project; and v) the 2020 Management Report for the Project¹, providing a summary of the Project's E&S and facilities management, including a previous consultation process and other issues such as human resources, occupational health and safety, communications, and archaeology. The ESDD also includes information from other public sources and from interviews with the Concessionaire's representatives. Given the movement restrictions imposed by the COVID-19 pandemic, the ESDD

¹ <https://uniondelsur.website/documentos/>

did not include an in-person visit to the site by IDB Invest's team; however, it was visited by an E&S consultant hired for the task².

2. Environmental and Social Classification and Rationale

According to IDB Invest's Environmental and Social Sustainability Policy, the Project has been classified as Category A because it can generate, among other things, the following impacts and risks: i) generation of dust and air emissions; ii) increase in ambient and work-related noise due to the use of machinery during the construction phase and of traffic during the operation phase; iii) generation of domestic and industrial wastewater; iv) surface compacting due to heavy traffic during construction; v) potential soil, and surface and groundwater pollution; vi) waste generation; vii) traffic disruption during construction; viii) use of water resources; ix) removal of vegetation coverage; x) physical and economic displacement of the population; xi) potential impact on indigenous populations, and xii) employment expectation among the population. These impacts and risks are deemed to be of medium-high and high intensity.

The Performance Standards ("PS") triggered by the Project are: (i) PS1: Assessment and Management of Environmental and Social Risks and Impacts; ii) PS 2: Labor and Working Conditions; iii) PS 3: Resource Efficiency and Pollution Prevention; iv) PS 4: Community Health, Safety, and Security; v) PS 5: Land Acquisition and Involuntary Resettlement; vi) PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; vii) PS 7: Indigenous Peoples; and viii) PS 8: Cultural Heritage.

3. Environmental and Social Context

3.1 General characteristics of the Project's site

The Department of Nariño, where the Project is located, is in the southwest of Colombia. It borders with the Department of Cauca to the North, the Department of Putumayo to the East, the Pacific Ocean to the West, and Ecuador—for about 250 km—to the South. It occupies 33,093 km², with 64 municipalities and almost two million residents³, 50.1% of whom are women.

Nariño is famous for its biodiversity and cultural diversity shown in several cultural expressions, such as the Pasto Carnival or Carnaval de Blancos y Negros (Carnival of Blacks and Whites). One of the aspects that has defined and built the department's identity is its multiethnicity; its population is 70.4% mestizo, 18.83% Afro-descendant, and 10.8% indigenous.

² This visit occurred on July 4-5, 2021, and involved: i) visiting the 5 FUs; ii) inspecting the condition of the flower beds at FU 5.2; iii) visiting the surplus material warehouse (ZODME) Z4-7 to check the refurbishing activities; iv) visiting the resettled social unit at FU 3 to assess the way the population has been compensated, the type of help they have received, and the overall status of the relocated families; v) visiting the camps to check the general operation of the facilities, how clean each site is kept, how liquid and solid waste is managed, and how the facilities are managed from the gender perspective; vi) cut-off zone 305 to check how the restoration activities are going at the intervened sites; vii) checking the state of the Mawá camp; viii) visiting ZODME Z1-18 to check how materials are being disposed; and viii) visiting the Ipiales camp.

³ Data from the census performed by the National Administrative Department of Statistics ("DANE") in 2008.

The Project is located within the tropical rainforest biome, along the foothills of the Andes. Its area of biotic influence includes an array of land utilized for agricultural activities, and by savannah, gallery forests along water courses, and dense Andean forests, artificial crops, urban areas, secondary vegetation, and transportation infrastructure.

At the Project corridor, especially near the city of Ipiales, it is worth noting the presence of indigenous and Afro-descendant mestizo populations. The Municipality of Tangua has a recently constituted and registered *cabildo indígena* (a special public administrative body with indigenous representatives). There are four other *cabildos indígenas* in the Municipality of Pasto, where a large proportion of the population sees themselves as indigenous. The Project completed six prior consultation (*consulta previa*) processes with indigenous peoples along the affected corridor, which were certified by the Ministry of Interior.

3.2 Contextual risks

The Department of Nariño has a strategic place in the international context, as both Colombia and Ecuador are part of the US-led war on drugs and terror in the Andean region. The department is also one of the so-called “glocal places”⁴ where several domestic and international factors converge, including armed conflict and drug trafficking, considered two major threats to many countries in the Andean region. This partly explains the reason why the Colombia Plan⁵ was approved as part of the more general Andean Regional Initiative⁶ (“ARI”).

One of the major reasons why the department is relatively behind other regions in Colombia is that it has been historically isolated and has no connecting roads. This has led to worrying levels of poverty, especially in the Pacific sub-region of Nariño, which covers 60.04% of its territory; it is geographically isolated, it lacks means of transportation, the land is barren, and there are many varied endemic diseases.

Some regions of Nariño have been strongly affected by armed warfare, which has translated into homicides, massacres, threats, massive population displacements, illegal land expropriation, anti-personnel mine setting, and the presence of numerous illegal crops. Several armed groups have ended up in the department (guerrillas, militias, new organizations with veterans, and drug traffickers). This caused such a complex scenario that several of these originally opposing groups felt compelled to join forced to face the Revolutionary Armed Forces of Colombia (“FARC”) and the National Liberation Army (“ELN”).

The presence of illegally armed actors, particularly from the ELN and dissidents from the extinct FARC, is mainly due to the department’s location, which is strategic within the domestic and international contexts: access to the sea; a long border line with Ecuador; robust economic activity with Ecuador; large forest areas; access to the “Bota Caucana” (boot-shaped end of the Department of Cauca) and the Colombian massif; presence of the Trans-Andean Oil Pipeline (blown up several times by the FARC and the ELN); and good production of gold and silver.

⁴ A combination of places of global relevance, but of local importance as well.

⁵ The Colombia Plan is a bilateral agreement entered by the Colombian and the US governments in 1999 with three specific objectives: to help economic and social development, to end armed conflict in Colombia and to develop an anti-narcotics strategy.

⁶ The Andean Regional Initiative (“ARI”) was approved by the US Congress in 2001 to strengthen democracy, boost commerce and encourage the struggle against illegal traffic of narcotics in Colombia, Ecuador, Bolivia, Peru, Venezuela, Panama and Brazil.

The corridor where the Project is located is currently considered to be of low to moderate risk.

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

4.1 Assessment and Management of Environmental and Social Risks

4.1.a E&S Assessment and Management System

Since 2015, when the pre-construction works started, the Project has had a Comprehensive Management Plan (“CMP”) in place. The CMP includes policies, plans, and procedures to address the Project’s impacts through corresponding management measures.

The Project keeps valid environmental authorizations and permits as required under Colombian law and has an effective system in place to identify and obtain permits as they become necessary as the works progress. To date, the Project has had no active penalties imposed by any environmental authority.

4.1.b Policy

The Project’s CMP includes an environmental policy, a health and safety policy, and a quality policy. All of them are disseminated to workers and displayed at the Project’s offices and sites.

4.1.c Identification of Risk and Impacts

The Project carried out two environmental impact assessments (“EIAs”) as required by the National Authority in Environmental Licenses (“ANLA”). The first EIA corresponds to the San Juan-Pedregal stretch (FU 1.3, FU 2, FU 3), and the second is for the Pedregal-Catambuco stretch (FU 4 and FU 5.1). Both EIAs suitably identify the impacts generated by the Project and establish management measures in line with their magnitude and intensity. The Ipiales-San Juan stretch did not require an EIA under current legislation and was handled by an adaptation of the environmental guidelines (“PAGA”) ⁷.

In late 2020, the Project had completed FU 5 and submitted a corresponding Environmental Sign-off Report to relevant authorities. The construction phase of FU 4 ended in December 2020.

4.1.c.i Direct and indirect impacts and risks

The EIAs identify the following activities as those that generate the most impacts: i) acquisition of land for road easement purposes; ii) physical and economic displacement of the population as a result of the road easement process; iii) effects on indigenous communities; iv) construction and

⁷ The adaptation of the environmental guideline (“PAGA”) is the technical instrument used to manage the environmental and social aspects of projects that do not require an environmental license to be executed. The instrument contains environmental management programs that take into account the environmental impacts that each project may generate according to the physical, biotic, social, economic and cultural characteristics of the area of direct influence where it is located.

operation of warehouses for drilled material (“ZODME”), and related access roads; v) removal of vegetation coverage, resulting from the clearing and cleaning of the road easement area; vi) the construction of camps and accesses; and vii) earthworks in general, with the subsequent impact on vegetation and biological species.

The generated impacts have been adequately managed during the construction works with the implemented environmental management plans (“EMP”) for the Project. So far, according to the reports of CASI and the consultant hired by IDB Invest to support the ESDD, there are no environmental or social liabilities for the Project.

4.1.c.ii Analysis of alternatives

Due to the fact that the Project basically involves refurbishing and improving the roadway in the Ipiales-San Juan and Catambuco-Pasto stretches, respectively; that the double lane highway between the Pilcuán and Catambuco townships will be built within the existing corridor; and the construction works between the San Juan and Pilcuán townships were performed in a completely new sector, including building two new roads; the Project performed an alternatives analysis for only the latter, which ANLA understood had low impact given the optimized design submitted by the Project. In this regard, the ANI defined a strip of land, including the existing road easement area, on which the Concessionaire can make minor changes in the road layout to minimize any environmental or social effects (cuts, excavations, facilities involved) the future works may cause. The alternatives analysis performed for the Project mainly involves assessing what the most suitable construction methods would be to eliminate undesired impacts, including those that would have been created if the alternative had been kept in the initial corridor⁸.

4.1.c.iii Cumulative impact analysis

The EIA for the San Juan-Pedregal stretch analyzes the cumulative impacts per Decree 1076 of 2015 from the Ministry of Environment and Sustainable Development (“MADS”), as well as the terms of reference of the environmental authority to prepare environmental studies, as established in Resolution 751 of 2015 from ANLA. Even though the methodology followed to identify and assess these impacts differs from the one used internationally to this effect, agriculture and cattle raising are identified in the results of this analysis as the main current and future activities to bring about incremental effects beyond those generated by the future works.

The analysis performed identifies cumulative impacts on the following valued environmental and social components (“VEC”): i) soil, in terms of stability, its physical and chemical properties, and changes in current and potential use; ii) water, in terms of changes in courses and recharge areas; iii) air, in terms of gas and particulate emissions; iv) flora and fauna (as a result of changes in vegetation coverage) habitat, and hydrobiological communities; and v) social aspects, including changes in the population’s dynamics due to employment, changes in the price of land, and the potential generation of social conflict. The study concludes that, given the fact that the works involved in the Project are carried out within a corridor that has already been intervened by the

⁸ Keeping this layout would have meant building tunnels and performing slope cuts at considerable heights, which would have caused impacts of high magnitude and significance.

road in service, these incremental effects are immaterial, so there is no need for a plan to mitigate the cumulative impacts.

4.1.c.iv Gender risks

Neither the EIAs nor the Project or the PAGA specifically evaluated gender risks. The Involuntary Resettlement Plan (“IRP”) did not include specific measures either to assure gender equality in the road easement process. However, as the amount of workers the Project will keep in the camps is relatively small (the largest can hold 300 people); the camps have separate dormitories and facilities for men and women; most unqualified labor comes from the same communities the road runs across; Colombian legislation provides mechanisms to punish any type of harassment or mistreatment of women; and, in practice, the involuntary resettlement process carried by the Project implied a positive discrimination for women⁹, the gender risk induced by the Project is considered low.

Regardless of the above, this does not mean there is no potential for sexual harassment or mistreatment, as these situations are not always disclosed. So far, the internal and external grievance mechanisms have not captured any substantial grievance in connection with this issue¹⁰. In this sense and given its importance, since late 2019, the Project has monitored the questions in more depth. Nevertheless, the monitoring reports prepared by CASI do not contribute any evidence of substantial issues related to gender risks.

4.1.c.v Climate change exposure

The Department of Nariño has an average temperature of 20.8°C; however, given its topography and geolocation, it has a wide range of temperatures from -1.3°C in the municipality of Cumbal to 28.5°C in the municipality of Francisco Pizarro. As for precipitation, the department shows a clear bi-seasonal pattern, with the wet season peaking in May and October, and the dry seasons in February and August.

The Andean area, where the Project is located, is characterized by an average annual rainfall between 750 mm and 3,500 mm. Nevertheless, the region endures heavy, short-term rains, which usually cause quick saturation of the soil leading to sudden landslides. Therefore, some of the work the Concessionaire will do during the concession will be cleaning up after landslides.

In terms of water availability, the area where the Project is located presents low vulnerability in the bordering area, which becomes medium-low the closer it gets to the city of Pasto. The water volumes in the area follow the same pattern.

⁹ Gender-based positive discrimination includes the following measures, among others: i) priority given to deal with resettlement issues upon knowing the head of the household was a woman; ii) preference in the sequence of moving from the social unit; and iii) granting property deeds of the houses that were returned in the name of women.

¹⁰ In fact, if the grievance mechanisms captured any type of complaint related to this issue, it would be a major indicator that the Project has gender-related issues that must definitively be managed.

The climate behavior forecasts in the Territorial Plan of Climate Adaptation of the Department of Nariño¹¹ (“PTAC”) show that, by 2050 in the area where the Project is located, the average rainfall and temperature will grow by 1.71% and 2.18°C, respectively. According to one of the four global climate models¹² analyzed, the rainfall variability expected for the Project area for the turn of the century, considering the climate change incidence (percentage change of rainfall for 2070-2099 as compared to 1976-2005), may go up by 25%-50%. The plan concludes that the climate in the region will be exacerbated with climate change and will be subject to climate events that will be more frequent and more intense than the ones we are experimenting now. Even though the PTAC states that the Project’s current exposure is low in terms of climate impacts, these may change to medium-low if more conservative models are applied, or even to medium if the most rigorous forecasts are considered.

The Project designs have considered the climate variability exposure of the region in which the road is located. Thus, the safety and security factors have been increased so that, for instance, the structures moving or situated in water can work or endure larger volumes by extrapolating water elements; smaller slope angles have also been considered to prevent problems caused by the sudden saturation of the soil.

4.1.d Management Programs

As part of their management and monitoring plans, the EIAs include the following programs: i) Soil Management Program, including plans to handle debris and surplus material (“ZODME”), slopes and hillsides, erosion control, use of explosives, transportation of construction materials, surface run-offs, landscape, and solid and special waste; ii) Water Management Program, which includes plans to handle water course crossings, groundwater, surface water abstraction, domestic and non-domestic liquid waste, air, and sources of noise and emissions; iii) Abiotic Environment Compensation Program, which includes a soil recovery plan; iv) Biotic Environment Management Program, which includes a plan to handle clearing actions and vegetation coverage, one for protecting wildlife, another for handling flora, another for protecting sensitive ecosystems, another for managing intervened areas, and another for handling vegetation coverage and affected wildlife compensations; and v) Social and Economic Management Plan, which includes plans involving community engagement and reporting, user care (including grievance management), support to society and facilities, education and training for Project personnel, education and awareness-raising for the community near the Project, institutional capacity support, road safety culture, management of the social infrastructure affected by the Project, specific prior consultation agreements, and restoration of economic and productive activities.

According to the monitoring reports produced by CASI, these programs are suitable to handle the Project’s impacts, are being effectively implemented, and have been adapted and updated when necessary.

¹¹ Guevara, O.; Abud, M.; Trujillo, A. F.; Suárez, C. F.; Cuadros, L.; López, C. & Flórez, C. (2016). Territorial Plan of Climate Adaptation of the Department of Nariño (PTAC). Corponariño and WWF-Colombia. Cali, Colombia.

¹² MIROC-ESM-CHEM model.

4.1.e Organizational Capacity and Competency

Since it was launched, the Project has kept a robust environmental and social management team with enough properly qualified professionals. This team includes two people responsible for communications; two people for human resources; three professionals in charge of occupational health and safety issues; six professionals to manage documentation; six people in the legal department; seven professionals to handle previous consultation matters; eight archeologists; 13 environmental professionals; 14 people in the social area; and 60 other professionals, including lawyers, technicians, coordinators, social residents, appraisers, drafters, and quality control experts responsible for facilities management issues. These figures have changed to fit the Project magnitude: sometimes the headcount was higher and some people were made redundant, like when the operation and maintenance phase in FU 5, FU 4 and FU 3 started.

This managerial team is also supported by outsourced specialized consultants that are called in when the Project requires them, for example to address matters related to indigenous peoples, biodiversity, and archeology, among others.

4.1.f Emergency Preparedness and Response

The Project has in place a Risk Management Plan¹³ ("RMP") that identifies the most important risks and threats and establishes emergency prevention and response measures, including signage, logistic support, equipment and infrastructure, next steps, and the responsibilities of the people executing the plan.

Risk was assessed for the following aspects: keraunic level¹⁴, flooding, damming, mass wasting, volcanic risk, wildfire, presence of dangerous animals, presence of unlawful armed groups, and road safety (accidents). The analysis concluded that the main risks to which the Project would be exposed are seismic movements, mass wasting, volcanic activity, and traffic accidents.

As part of the training and implementation of the provisions in the RMP, the Concessionaire performs response drills for different types of emergencies. These drills, which are usually attended by national and local risk management authorities, contribute to the continuous improvement of the instrument.

4.1.g Monitoring and Review

The EIAs and the PAGA establish monitoring and review plans for: i) water abstraction, occupied areas, and domestic and non-domestic wastewater; ii) systems for handling, treating, and disposing of solid waste; iii) air emissions and air and noise quality; iv) groundwater; v) area clearing and vegetation coverage; vi) wildlife; vii) flora; viii) sensitive system protection; ix) reforestation of intervened areas; x) compensation for vegetation coverage and wildlife impacts; xi) 1%

¹³ The RMP complies with the terms of reference for road construction projects issued by the Ministry of Environment and Sustainable Development ("MADS") through Resolution 0751 of May 26, 2015.

¹⁴ Average number of days a year when at least one thunder can be heard.

investment¹⁵; xii) social impacts; xiii) indicators of managerial performance and of social and economic performance for each EMP program; and xiv) effectiveness of the EMP social and economic programs.

The Project's monitoring and review system is comprised by several internal and external actors. The Concessionaire, principal contractors, and the Inspector¹⁶ are internal. External actors include ANI, the Corporación Autónoma Regional de Nariño ("Corporenariño"), ANLA, and topic-specific government agencies, such as the Colombian Institute of Anthropology and History ("ICANH") for archaeological and cultural heritage questions, among others. Also, and in conformity with Annex 8 of the concession agreement, there is an external monitoring and review actor representing the affected population, called the "Observer." This managerial group also involves the Project's financing entities in charge of monitoring and reviewing tasks, which they perform directly or through CASI.

4.1.h Stakeholder Engagement

4.1.h.i Disclosure of Information

The EIAs and the PAGA describe the information that was shared with communities while they were prepared.

The Project is currently informing the community through a quarterly newsletter, flyers, and leaflets. These provide information about the works, including about their environmental and social aspects. The Concessionaire has a web page¹⁷ on which they post Project-specific information and environmental and social documents, such as the 2020 Management Report, the Public Engagement Plan, and the Resettlement Plan¹⁸.

The Project's Public Engagement Plan reports the frequency for the following reporting and consultation activities: i) extraordinary meetings, as needed; ii) quarterly reports to ANI; iii) monthly corporate institutional TV programs; iv) biannual reports to ANLA; v) quarterly newsletters; vi) radio ads, aired constantly; and vii) social media posts (Facebook, Twitter and YouTube), as needed.

In the last five years, the Concessionaire has posted over 120 Project-related videos on its YouTube channel¹⁹, including information about social projects in which it has participated.

¹⁵ For projects leading to changes in the water resources, the Colombian legislation (Decree 1900 of 2006 from the Ministry of Environment, Housing and Territorial Development, enforcing the single paragraph of Article 43 of Law No. 99 of 1993) establishes the need to allocate 1% of the project partial investment to recover, maintain, preserve, and monitor the river basin flowing into the corresponding water source.

¹⁶ Equivalent to an occupational health and safety, and social and environmental supervisor. The Project's inspector is Herdoíza Crespo Construcciones Colombia SAS Ingenieros Ltda.

¹⁷ <https://uniondelsur.website/>

¹⁸ <https://uniondelsur.website/documentos/>

¹⁹ <https://www.youtube.com/channel/UC5mZhKA1T1ev2nUU1qJk7xQ/videos>

4.1.h.ii Informed Consultation and Participation

The EIAs and the PAGA describe the community consultation activities carried out while the assessments were prepared and contain the results from interviews and a census used for the corresponding analyses.

During the construction phase, the Project has been implementing its Public Engagement Plan, including community engagement activities that were carried out following the most strenuous biosafety protocols to avoid spreading COVID-19.

In order to socialize, raise awareness, and inform communities, as well as to strengthen the relationships between them and the Project, the Concessionaire holds the following meetings for each FU: i) initial meetings, held before the operations start and before any construction in the FU in question to share with the community and municipal entities information about the technical, environmental, social, and facility-related activities to be performed; ii) progress meetings, to be held once 50% and 90% of the works have been completed to show how the Project is progressing and the results of environmental and social management programs; iii) extraordinary meetings, to be held at the request of communities or the Concessionaire to discuss specific issues that may arise; and iv) sign-off or closing meetings, to present the completed Project to the community once the works are finished.

The Project has three user care offices along the corridor, covering FU 1, FU 1.3, and FU 3. Given the fact that the works in the FU 4 and FU 5 have been completed, any request submitted by the public in regards to this stretch is directly handled from the Project's main office. The Concessionaire also has two user care mobile units, which cover areas with limited or no Internet access.

Since the works started, the Project has consistently held meetings with communities and authorities. For example, in the last quarter of 2020, the Project held 24 meetings in which the following topics were presented and discussed: road connections, environmental compensation plans, toll booth location, design of a school in Pilcuán, Emergency Preparedness and Response Plan, construction progress, works completion in FU 3 and FU 4, work designs, construction activities and impacts, and temporary road detours. In the same period, 15 other informal meetings were held about the works affecting illegal occupants of the road easement area.

4.1.h.iii Indigenous Peoples

The Ministry of Interior oversees prior consultation with indigenous communities in Colombia. This process involves specific steps to reach registered agreements with communities, such as requests for certificates of presence of indigenous communities, socialization with the communities, consultation activities, workshops, pre-agreements, registration meeting, compliance with agreements, and the sign-off process.

In compliance with Colombian regulations, since its onset, the Project has implemented a free, prior, and informed consent process with the seven indigenous communities certified by the Ministry of Interior as present in the Project area: i) Cabildo Indígena Catambuco (FU 5); ii) Cabildo Indígena Montaña de Fuego (FU 4); iii) Cabildo Indígena de Tangua (FU 4); iv) Resguardo Indígena (similar to

an indigenous reservation) in Iles (UF2 y UF3); v) Cabildo Indígena Aldea de María (FU 1); vi) Resguardo Indígena in San Juan (FU 1); and vii) Resguardo Indígena in Ipiales (FU 1).

As of today, the Project has reached registered agreements and has advanced their implementation with six of the abovementioned indigenous communities, with the exception being Resguardo Indígena in Ipiales. The Project is still in discussions with the Ministry of Interior, the Governor of Nariño, and the community to reach an agreement regarding their approval of the future double lane highway.

4.1.h.iv Private Sector Responsibilities Under Government-Led Stakeholder Engagement

Given the characteristics of the Project, there has not been a government-led stakeholder engagement process.

4.1.i External Communication and Grievance Mechanisms

4.1.i.i External communication

The Project's communications team is made up of two people who use several methods of external communication, including the corporate web page and e-mail. This process is supported by advertisements, leaflets, and daily and weekly communications on the radio and social media. Moreover, the Project uses three local offices and two mobile units to provide the community with information.

4.1.i.ii Community grievance mechanism

The Public Engagement Plan includes a mechanism to address petitions, grievances, complaints, and suggestions ("PGCSs") received through several channels, including suggestion boxes, e-mail, web page, a 24-hour telephone line, the Project's local offices, and mobile units.

The Community Grievance Mechanism, as part of the Public Engagement Plan, includes the following steps: i) reception: community PGCSs are received through the abovementioned means (web page, boxes, e-mail, etc.); ii) registration: each PGCS is recorded using a specific form for that purpose; iii) classification: each PGCS is classified and the response times are established per type of contact (15 days for complaints, grievances, and opinions; 10 days for petitions and general requests for information; 30 days for inquiries); iv) execution: the recorded PGCSs are addressed (this involves visits, meetings, communications, or any other actions necessary to resolve it) and the post-assessment resolution is communicated to the sender; and v) archive, once the resolution has been accepted by the sender, the file is archived together with supporting documents. Grievances can be filed anonymously.

In the last quarter of 2020, 154 PGCSs were received through the mechanism, most of which were petitions, almost 70% of which were related to construction activities. In late 2020, there were 136 PGCSs open and under analysis.

4.1.i.iii Provisions for addressing vulnerable groups' grievances

The grievance mechanism offers multiple channels of access to several sectors of the community. As part of the preparation of the Public Engagement Plan, the Concessionaire compiled the social and economic information about the identified stakeholders, including vulnerable groups, as represented in the ethnic communities involved.

While the Project's grievance mechanism has no specific procedure to receive and resolve PGCSs from vulnerable groups, these types of grievances are usually received by the Concessionaire's social team, who continually visits the Project's neighboring communities. Additionally, several of the grievances filed by vulnerable groups are received through civic observers, and are directly submitted to the Concessionaire for assessment.

4.1.j Ongoing Reporting to Affected Communities

The Project keeps the community informed with videos, audio messages, and infographics that are constantly disseminated through social media, radio, mobile public address systems, and WhatsApp groups, as well as through regular meetings with the community. The Concessionaire publishes its Annual Management Report on its web page.

4.2 Labor and Working Conditions

4.2.a Working Conditions and Management of Worker Relationships

4.2.a.i Human Resources Policies and Procedures

The Project has adopted a robust human resources policy, an abstract of which is visibly displayed in all Project offices.

The Concessionaire has several protocols to hire labor, which state that all staff to join the Project will go through a process that is transparent, equitable, fair, and free from obstacles that hinder the participation of the population and from any type of discrimination due to origin, gender, ethnic group, or religion. These protocols, which have been in place since the works started and will remain in place until the operation and maintenance phase is over, comply with Colombian law.

4.2.a.ii Working Conditions and Terms of Employment

Colombia's regulatory framework is very strict and thorough in terms of the working conditions that shall be observed nationwide. In this sense, the Worker's Manual of Sociedad Concesionaria Vial Unión del Sur, S.A.S, in force since 2016 and since updated twice, most recently in 2018, includes measures that regulate working hours, a probationary period, and annual leave and overtime; includes provisions for worker health and safety; expressly prohibits child labor; determines the type of work that cannot be done by women; encourages respect for worker dignity; includes details about disciplinary procedures; and sets up work committees to mediate in case of work disputes.

The Project also offers emotional support, including time off for paternity reasons, a family day off, time off for marriage, and two days off for birthdays, as well as four hours off each quarter for family matters.

In late 2020, the Project had 13 major contractors and several subcontractors, accounting for 4,800 employees. Over 80% of them came from the Project's area of influence; 19% were women and 7% came from neighboring ethnic communities. As of June 2021, the Project has 3,482 employees, 87% of which belong to the Project's area of direct influence and 19.5% of which are women.

The work schedule implemented by the Project is six continuous days of work and one day off, or four days off per 21 days worked. Workers have eight-hour shifts, and any additional hours worked are paid as overtime²⁰.

The Project had nine camps to accommodate about 850 workers. Six camps have been closed²¹, as most of the work in the related FUs has been completed, whereas three of them are still in use²². Both the camp in Tangua (already closed) and the one in Mawá (still in use) were exclusively used to isolate workers with COVID-19.

All camps were designed and built with separate facilities for men and women (rooms, bathrooms, toilets) and offer food and snack services (subcontracted), laundry, waiting staff, cleaning services, medical services (in-house physician), transport services, sports and leisure facilities (gym, football field, board game room), drinking water, wastewater treatment plant (when access to the municipal sewage was not available), housing, and offices.

The monitoring report prepared by CASI for September-December 2020 states that the operation and the conditions of the worker camps were adequate. The visit to the camps by the environmental and social consultant who supported the Project ESDD verified this.

4.2.a.iii Workers' Organizations

Colombian laws protect the right of workers to set up worker organizations. All Project workers belong to the Occupational Health and Safety Committee²³ (COPASST). Additionally and in line with legislation in force, the Project has also created a Labor Relations Committee²⁴.

²⁰ Overtime in Colombia is paid as an additional proportion of the regular hour, as follows: daytime, 25%; night time, 75%; Sundays and bank holidays daytime, 100%; and Sundays and bank holidays, 100%.

²¹ The camps that have been closed are: Tangua, for 200 people; Pedregal for 42; Casa Finca for 50; Imués (Casa Porvenir) for 48; Imués (Vereda Pilcuán) for 10; and Ipiales (Hotel Patio Grande) for 17.

²² The camps that remain in use are: the one in the municipality of Imués (Mawá) with room for 300 people; Ipiales (Hotel Las Lajas) for 130 people; and Ipiales (Hotel Hojarasco) for 50 people.

²³ According to Resolution No. 2013 of 1986 from the Ministry of Work and Social Security, and the Ministry of Health, every company and institution, either publicly- or privately-run, with ten or more employed workers, must constitute an Occupational Health and Safety Committee ("COPASST"), comprised of workers' and employees' representatives to promote and monitor compliance with the occupational health and safety standards.

²⁴ By virtue of Law No. 1010 of 2006, the Labor Relations Committee, made up of people working for a public agency or a private company, is in charge of receiving and addressing the grievances that include situations of potential harassment in the workplace.

4.2.a.iv Non-discrimination and Equal Opportunity

The Project has in place a policy to recruit and hire staff, which focuses on transparency. The Code of Conduct adopted by the Project demands practices of no discrimination (per gender, sex, race, political views, religion, etc.) as well as equal opportunities for all workers.

The Concessionaire has organized a committee to promote gender equality at work and has started a campaign to raise awareness among workers about gender-based violence.

4.2.a.v Retrenchment

As the Project works are coming to an end, the Labor Demobilization Plan started to be deployed in January 2021. This plan includes support for retrenched employees: a list of job vacancies; access to legal aid; training to start their own business; and tips and support to prepare a CV. The Concessionaire gives every worker they lay off a certificate of job completion.

4.2.a.vi Grievance Mechanism

In compliance with Colombian legislation, the Labor Relations Committee is responsible for managing the grievance mechanism through a pre-defined process to receive, address, and resolve grievances. A survey performed in December 2020 indicates that almost 90% of workers knew about this mechanism. However, the Project still makes every effort to disclose it when onboarding new workers, at the routine training sessions of workers, with frequent e-mails to workers, and in promotional leaflets.

The Project did not receive grievances from workers in the last quarter of 2020.

4.2.b Protecting the Workforce

4.2.b.i Child Labor

The labor hiring program complies with the Colombian legal framework²⁵ as: i) it does not allow for hiring minors; ii) it promotes work standards that are compatible with all types of voluntary work or service, thus prohibiting coerced or forced labor; iii) it states only people over 15 years old can be hired for non-dangerous jobs, and over 18 for dangerous jobs; and iv) it does not allow for hiring children in any way that may constitute economic exploitation, that interferes with their education, or that may be dangerous for their physical, mental, or social development.

The ESDD did not reveal any evidence that minors have been hired for the Project (by the Concessionaire, the Inspector, or contractors and subcontractors).

²⁵ Article 67 of 1991 Constitution; Article 28 and 35 of Law No. 1098 of 2006.

4.2.b.ii Forced Labor

Colombian regulations are strict in terms of prohibiting forced labor. The ESDD did not find any evidence of involuntary work or forced labor in the Project (by the Concessionaire, the Inspector, or contractors and subcontractors).

4.2.c Occupational Health and Safety

The Project is certified for ISO 14001²⁶, OHSAS 18001²⁷, and ISO 45001²⁸.

The Project's Occupational Health and Safety Plan includes a regulatory framework; defines the responsibilities to manage occupational health and safety ("OHS") issues; specifies the need for health check-ups among personnel; creates an epidemiological surveillance system; requires health monitoring actions; sets forth hygiene measures; requires signage and delimitation of work areas; and demands the use of personal protection equipment ("PPE").

The Concessionaire also has an OHS system with all the necessary management elements to prevent and mitigate risks, and the guarantees for workers to have a healthy and safe workplace. This system, applicable to all the Project's direct workers, contractors, and subcontractors, includes, among other aspects, the need to perform a "root cause analysis" for every occupational incident, accident, or disease happening in the Project, which will be used to prevent or manage future situations that are similar to those causing the incident or accident in question.

In the last quarter of 2020, the Project reported 50 events with a loss of workdays related to contusions (39%), musculoskeletal problems (26%), wounds (19%), fractures (7%), cuts (5%), burns (2%), and minor amputations (2%), usually fingers.

4.2.d Provisions for people with disabilities

Although the Concessionaire has not yet determined the amount of disabled people to be hired, it does not have any restrictions or impediments to employ people with disabilities either.

All Project facilities (especially control offices) have ramps, routes, toilets, and equipment that are compatible with the needs of employees with disabilities.

²⁶ ISO:14001 is a certification offered by the International Organization for Standardization ("ISO") to environmental management systems ("EMS") in companies that have proved to be able to manage the environmental risks specific to the activities they carry out.

²⁷ OHSAS 18001 is a British standard from the Occupational Health and Safety Assessment Series ("OHSAS"), internationally recognized for establishing the requirements to implement an occupational health and safety management system in those organizations that willingly choose to do so.

²⁸ ISO:45001 is the new standard for occupational health and safety management systems, developed by ISO to replace standard OHSAS 18001.

4.2.e Workers Engaged by Third Parties

In line with the legislation in force and applicable standards, the process for hiring workers for the Project by third parties has the same conditions and restrictions as for those hired directly by the Concessionaire (i. e., it guarantees the principles of no discrimination, no exploitation, no child labor, decent pay, and work security). The workers engaged by third parties generally have the same benefits and obligations as those hired by the Concessionaire.

4.2.f Supply Chain

The monitoring reports prepared by CASI do not reflect any significant issues in connection with the supply chain.

4.3 Resource Efficiency and Pollution Prevention

4.3.a Resource Efficiency

4.3.a.i Greenhouse Gases

The Concessionaire has prepared a plan to handle greenhouse gases; has identified the emissions in terms of the sources generating them; and has proposed measures to reduce the emissions when using vehicles and machinery, in energy generation, and in material handling processes.

The Project is in the final stages of preparation of its 2020 report on greenhouse gases emissions.

4.3.a.ii Water Consumption

The EIAs and the PAGA contain sections that analyze the volume of water to be needed by the Project. The EMP includes some handling and monitoring measures to assure the efficient use of water, such as the installation of water meters and the execution of awareness campaigns to encourage a streamlined use of water and to reduce its consumption.

The environmental authority has approved the water sources and volumes required by the Project. All necessary water consumption permits are kept up to date.

In 2020, the Project consumed almost 1,468,000 m³ of water, with marked differences depending on the time of year: in the first two quarters, less than 100,000 m³ per quarter was consumed, whereas in the second half of the year, water consumption rose to over 600,000 m³ per quarter. The increase in the consumption coincides with a rise in construction activity after the initial drop due to COVID-19.

4.3.b Pollution Prevention

The Project has adequately established the demand for, the use and exploitation of, and the effects on the natural resources required to execute the expected activities. It has also identified the

actions needed to avoid or minimize the emissions of pollutants into the water, air, and soil, and has set forth monitoring indicators for the most representative parameters for the quality of each of them. The baselines for air, noise, water, and soil quality are defined both in the EIAs and in the PAGA.

The Concessionaire has been monitoring the hydrobiological, physical, and chemical elements in water, as well as air quality and noise conditions. The monitoring reports produced so far include the sampling methodology, specifications of the equipment used, sampling points, and results, and do not reveal any deviation from the forecasts in the environmental assessments or excess over the limits set by Colombian regulations.

4.3.b.i Wastes

The Project's EMP includes measures to handle waste, including training workers in the waste generation-to-disposal cycle, including its classification per type, its temporary storage, collection, and transportation. The plan requires the use of duly certified contractors for the final disposal of waste, as well as the use of properly licensed dumps or landfills.

The EMP also includes measures for the temporary storage of hazardous and non-hazardous waste at construction sites, as well as measures for its transportation. Certified companies are used to dispose of the hazardous waste, including Serpro Ingeniería S.A.S., EMAS, and Recuperoil S.A.S.

Waste generation increases significantly in the second half of 2020, due to an increase in construction activity; the generation of domestic solid waste rose by almost three-fold; almost twice as much solid hazardous waste was generated, and the same happened with recycle material; and the generation of liquid hazardous waste tripled and wastewater doubled.

The Project is currently processing waste in accordance with Colombian standards, with no significant non-compliances or problems.

4.3.b.ii Hazardous Materials Management

The hazardous materials identified in the Project's EMP include, among others, fuel for vehicles and machinery, oils, grease, paints, and explosives. The plan includes actions to use, store, handle, and dispose of the hazardous materials associated with typical road construction tasks and special measures for the use of explosives. The latter are included in the Explosives Handling and Use Plan, which has been authorized by the National Defense Ministry by virtue of the legislation in force²⁹.

The following is observed when handling explosives: i) explosives and ignition elements are stored in separate areas for each material and exclusively used to that end; ii) robust bulletproof and fireproof structures are provided with good lighting and ventilation as well as damping or resonance chambers; they are located over 100 m away from buildings, railway tracks, roads, or any other type of structure; iii) storing other materials (paints, wood, waste, cardboard) in the same place where

²⁹ Safety measures included in Decree No. 2222 of 1993 and preventive and safety measures for mining work included in Decree No. 035 of 1994.

explosives are stored is prohibited; iv) danger notices are put up in explosives stores no farther than 10 m away from each other; and v) the explosives stores are constantly maintained so that they are free from grass, rubbish, remains of wood, paper, and other materials.

No incidents have been reported to date in connection with the use or handling of hazardous materials, including explosives.

4.3.b.iii Pesticides Use and Management

The Project does not use pesticides. The vegetation in the road easement and work areas is manually controlled by groups of workers.

4.4 Community Health, Safety and Security

4.4.a Community Health and Safety

The Project's EIAs and the PAGA have the necessary provisions to minimize the risks to communities near the road to which they would potentially be exposed, with the necessary preventive and control measures.

The Project's EMP defines actions to reduce the accident rate in the road and raise road safety awareness in neighboring communities. The Concessionaire has entered into agreements with the traffic police to start road safety actions as well as educational and accident prevention activities, and to develop and implement an Emergency Response Plan for the operation phase.

4.4.a.i Infrastructure and Equipment Design and Safety

As part of the concession agreement, apart from carrying out all civil works, the Concessionaire must provide users with roadside assistance, put up horizontal and vertical signage on the road, clean ditches and other hydraulic structures, and graze road vegetation.

The Project has adopted a Traffic Management Plan that includes safety measures for pedestrians and motor vehicles while the construction works are in progress. These include: i) sound signals for vehicles driving in reverse; ii) use of visual signage (assistants with flags) when heavy machinery is moving outside work fronts; iii) use of support convoys when oversize cargo or explosives are transported along public roads; iv) regular review of all machinery operating in the Project; and v) use of signage to identify dangerous or sensitive places or those that require authorization to traverse. Additionally, the Concessionaire is carrying out an awareness and education campaign in the community that includes school-age children.

In 2020, 250 accidents were recorded in the road, which resulted in 6 deaths, 56 minor injuries, and 121 serious injuries. In the same period, the Project offered first aid to 157 road users, gave mechanical assistance 2,476 times, and removed about 1,700 m³ of debris from the road (landslide).

The Project leverages heat maps³⁰ to define the accident prevention measures at specific points along the road.

4.4.a.ii Hazardous Materials Management and Safety

The transportation, handling, and use of hazardous materials are regulated in Colombia through Decree No. 1609 of 2002 and standards from the Colombian Institute of Technical Standards and Certification (“ICONTEC”). Both legal bodies regulate, among others, the following aspects: i) packing method; ii) type of label to be used depending on the hazard level of the material to be transported; iii) minimum requirements for packing hazardous materials; iv) requirements for vehicles transporting hazardous cargo; v) minimum amount of devices vehicles must have to avoid sparks; vi) emergency equipment each vehicle has to carry depending on hazardous cargo; and vii) certificates any natural person or legal entity handling hazardous material must have.

Colombian law sets forth that, when hazardous waste needs to be transported across the border, the provisions in the Basel Convention, as ratified by Law No. 253 of 1996, shall apply. In addition, when explosives are used or manipulated, the provisions in Decree No. 2222 of 1993 and No. 035 of 1994³¹, as well as Guidelines for the Acquisition of Explosives and Blasting Accessories of the Ministry of Social Protection³², shall also be applied when acquiring those materials.

The Project complies with the Colombian standards for handling and manipulating hazardous materials, including the handling, manipulating, and acquiring explosives.

4.4.a.iii Ecosystem Services

After a systemic review and having consulted with nearby communities, the Project identified 13 priority ecosystem services, including: i) surface and ground water provisioning; ii) physical support to set up agricultural and cattle-raising systems; iv) climate and water regulation; iii) air quality regulation and maintenance; iv) habitat maintenance and provisioning; v) landscaping; and vi) ground clean-up.

The Project monitors those 13 services with the help of a drone, which takes photographs, especially of mountain areas of the Project where ground access is difficult. The photographs the drone takes are then used to identify any morphological changes that may mean variations in the current ecosystem services and to create the required handling measures.

4.4.a.iv Community Exposure to Disease

As most of the staff that will be employed by the Project (as well as contractors) will come from the same places the road is being constructed and the camps will accommodate a small amount of workers (no more than 300), additional exposure of communities to external disease is not expected.

³⁰ These maps are used to identify the road sections with the highest accident rate.

³¹ These decrees contain provisions for mining safety.

³² <https://www.indumil.gov.co/wp-content/uploads/2016/02/GuiaExplosivos.pdf>

As a response to COVID-19, the Project has adopted biosafety measures to avoid spreading the disease internally (among workers) and externally (with communities), including: i) restricting worker movement away from their work posts or sites; ii) demanding everyone entering the Project work fronts and offices use biosafety equipment; iii) performing health preventive check-ups on staff (taking body temperatures, rapid antigen tests, y PCR tests); iv) preventively isolating everyone with symptoms as well as their work team; and v) executing awareness and education campaigns to share ways to prevent COVID-19.

To date, the cumulative number of COVID positive cases among Project workers is 347. The peak was in August and September 2020 (39 and 45 cases, respectively) and in January and June 2021 (88 and 34, respectively). No positive cases were recorded in July 2021.

4.4.a.v Emergency Preparedness and Response

The Project has a Risk Management Plan based on a thorough risk analysis prepared for the construction and operation phases. The plan describes the potential risks (spills, fires, explosions, natural disasters, work-related accidents, or demonstrations); establishes next actions; determines who is responsible for executing those actions in case any of the identified risks materialize; and sets up the communication and coordination lines with communities and local authorities. In order to implement it, the Concessionaire has developed teams that are specifically trained to address different risk scenarios. Additionally, the Project carries out previously arranged drills as well as others without prior notice to test the whole emergency preparedness and response system (including teams, procedures, chain of command, evacuation routes, and protocols).

The plan has been shared with nearby communities as well as with relevant authorities.

4.4.b Security Personnel

The Concessionaire has a 24-hour private surveillance system, provided by the local security company Zehirut. Security plans and strategies have been prepared with this company to support measures to prevent, protect, and preserve the physical integrity of Project facilities and personnel.

The Security Manual adopted by the Project includes a Code of Conduct for Zehirut's personnel. Zehirut has a behavior protocol for its guards, which reinforces the company's commitment to respecting human rights, human rights international law, and human dignity, while carrying out their security operations.

In the last quarter of 2020, apart from temporary roadblocks and pacific, brief demonstrations and protests, three minor security events or incidents were recorded: the workers were attacked by a person who did not agree with the construction works starting on their property; a demonstration was organized to protest against noise levels; and works at a ditch were disrupted by a person from the community. These events, which were adequately handled by the Project, were immediately resolved without having to resort to force.

To date, neither the Concessionaire nor CASI has reported a dangerous situation involving armed groups³³. Nevertheless, to address these possible scenarios, the Project has entered into support agreements with the National Police. The reports prepared by CASI do not report any tension between the security company and nearby communities members.

4.5 Land Acquisition and Involuntary Resettlement

4.5.a General

The concession agreement stipulates a strip of land within which the Concessionaire is authorized to make minor adjustments to the layout in order to perform their tasks. ANI added to contractual documents a tentative list of facilities possibly affected by the expected work because they are located in this strip of land. The initial list has been updated by the Concessionaire as they have reached the final layout of each FU.

4.5.a.i Project Design

Even though the Project design tried to avoid affecting the population, for road easement purposes it was necessary to acquire 1,502 facilities and 461 social units (families) were impacted, 84 of which correspond to ethnic communities³⁴.

By December 2020, the Project had generated predial inputs for all facilities; the Inspector had no objections to 1,466 of these inputs (98%); 1,457 facilities had been appraised with no objections from the Inspector (97%); an offer had been prepared for 1,438 facilities (96%); the owners of 1,426 facilities had received a purchase offer (95%); 1,395 purchase commitments had been signed (93%); 158 ownership transfer deeds were pending (11%); 822 facilities had already been acquired by ANI (55%); and 1,487 facilities had been released and authorization to intervene had been granted (99%).

4.5.a.ii Compensation and Benefits for Displaced Persons

According to the provisions in exhibits 7 (Facilities) and 8 (Social) of the concession agreement, the Concessionaire has prepared an Involuntary Resettlement Plan (“IRP”), which meets Colombia’s constitutional and legal requirements³⁵, as well as those stated in PS 5. The IRP includes, among other aspects: i) recognizing, for compensation purposes, both formal and informal owners; ii) measures to assure affected houses are replaced with suitable or better ones; iii) actions to assist displaced people in their relocation efforts; and vi) following up on affected vulnerable people³⁶ until

³³ Mainly ELN and FARC dissidents.

³⁴ This is how they are distributed: Resguardo Indígena de San Juan, 39 units; Resguardo Indígena de Aldea de María, 30 units; Resguardo Indígena Los Pastos, 2 units; Resguardo de Montaña de Fuego, 10 units; and Resguardo Indígena de Males, 3 units.

³⁵ Resolution No. 545 of 2008, which defines the social management instruments (Social and Economic Compensations Plan, Basic Social Plan, Social Management Plan) applicable to the infrastructure projects developed by the ANI; Resolution No. 077 of 2012, which sets the social management guidelines to prepare and execute involuntary resettlement plans applicable to social units irregularly occupying the plots required for the infrastructure projects under the concession; and Resolution No. 1776 of 2015, which defines the social management instruments applicable to infrastructure projects.

³⁶ These are some of the vulnerability criteria: i) single-parent families; ii) families with more than four children in school age; iii) families with chronically ill, handicapped or aging members; and iv) families whose only source of income is the work at the affected facility.

their livelihood is restored. The IRP is made up of a Facilities Acquisition Plan, a Social and Facility Compensation Plan, a Comprehensive Training Plan, and a Social and Facility Management Plan.

To date, the facility acquisition process³⁷ has been smooth as, in conformity with current legislation, the concession agreement, and related plans, the plots for the Project have been directly bought by the Concessionaire at a market price set by a third party. Thus, very few (only 4 as of December 2020) facilities could not be acquired³⁸ and had to be forcefully expropriated by judiciary means.

The Social and Economic Compensation Plan adopted by the Concessionaire has been developed to assure that the people affected by the facility acquisition process benefit from a fair price for their plots (purchased at commercial prices) and also from some compensation measures³⁹ that have been designed to alleviate the adverse effects of their displacement or purchase of their lots. Under special circumstances and for the vulnerable population whose houses have been affected, the Concessionaire has sought to pay in kind (a house for a house) and within the remaining portion of the plot. However, this was not always feasible as the affected families tended to prefer economic compensation.

To supplement the IRP, the Project has programs in place to support livelihood restoration and to give social assistance to vulnerable families (particularly focused on their mental health).

According to the monitoring reports produced by CASI, the Project has managed the compensations and benefits for displaced people adequately, effectively, and with no major setbacks or difficulties.

4.5.a.iii Community Engagement

The Project has enough suitable personnel (40 people at the end of 2020) to manage the resettlement process, including a team dedicated to support the homes affected by the displacement.

Since before construction started, the Project has informed communities about the impacts of the resettlement; shared surveys with directly affected homes; supported vulnerable homes; and prepared files that identified the homes to be resettled, as well as those to be removed, and their characteristics.

³⁷ The proposed acquisition process is very briefly as follows: With the property registration information and the commercial appraisal of the facility, the Concessionaire makes an offer to buy from the plot owner or possessor. The owner has the option to accept the offer, thus ending the negotiation process and moving onto the property sale. If the owner does not accept the price, they can submit a counter-offer duly endorsed by a recognized expert to the court for analysis and resolution. The Concessionaire then has two options: i) accept the price indicated by the jurisdictional authority, thus moving onto preparing the sale agreement; or ii) reject the price indicated by the judge; then the ANI, in compliance with the legislation in force, can request the judicial authority to start the process to forcefully expropriate the facility in question.

³⁸ Complex cases: i) inheritance of facilities in which the major heirs have different interests as to the asset to be intervened or where it has not been possible to locate all heirs; ii) facilities for which it was not possible to locate all heirs; iii) situations in which the process to duly hold the facility would take much longer than the time available to complete the Project; and iv) facilities in which the owner or possessor refuses to receive the Concessionaire's social and facility management team.

³⁹ For reasons of housing restoration, mobilization, social services restoration, support to lessors, restoration of livelihood, etc.

By December 2018, the Project team had held over 2,600 meetings with owners. Since then, the Project has held over 7,000 meetings with owners and possessors of the affected facilities; the social team has paid over 10,000 visits to the community; the technical team has held over 7,200 meetings with affected parties; and the legal team had met over 10,000 times with the community.

4.5.a.iv Grievance Mechanism

The Project has a mechanism to deal with grievances related to the acquisition of land and the involuntary resettlement, which is similar to the one used to handle PGCSs from the community. In the third quarter of 2020, 45 grievances were received, processed, and closed, most of which related to the purchase of additional areas, requests for information, construction of access roads to the facilities, and objections to the sale offers.

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

The resettlement and livelihood restoration actions are executed in strict compliance with the IRP⁴⁰. The plan includes: i) social and economic profile of affected people; ii) assessment of impacts (including an alternatives analysis to minimize them); iii) amount of facilities and social units to be affected; iv) rules of engagement with the community; v) eligibility, evaluation, and assistance criteria; vi) a matrix with the rights of the affected parties; vii) a list of measures for the restoration of their livelihood; viii) resettlement options for the people to be displaced; ix) a description of the grievance mechanism; x) organizational responsibilities in the process, xi) execution schedule and budget; and xii) process monitoring, assessment, and reporting method and frequency.

In 2020, the Project made progress in dealing with the compensations to owners and dwellers (possessors) of the affected facilities. According to the Concessionaire's 2020 Management Report, some of the major social and facility-related management activities are: i) executing 900 compensations for owners and dwellers; ii) resettling 321 social units; iii) executing 878 follow-up visits to displaced social units; iv) ending the support process for 16 vulnerable social units (14 with elderly members, one with a member with a hearing disability, and one with a mentally handicapped person), after over three years of follow-up; and v) completion of the relocation process of four community residences, which are currently rendering services in optimal conditions.

4.5.b Displacement

4.5.b.i Physical Displacement

The Project Compensation Plan identified 461 families that needed to be relocated along the Project route, including owners, tenants, settlers at homes with informal ownership titles, and possessors. In 2020, a total of 321 social units were resettled, 16 of which correspond to vulnerable homes.

The Project construction works also caused impacts on two community services: a water tank, which is being rebuilt, and the school in Pilcuán, which is being converted into an educational center upon a request from the community.

⁴⁰ See <https://uniondelsur.website/download/plan-de-reasentamiento/>

To date, the design of the school has been approved by the Secretariat of Education and discussed with the Ministry of Education and the leaders in the municipality of Pilcuán. While the school is being built (estimated for 10 months), the students have been temporarily reassigned to nearby education centers. Although the current restrictions on mobility imposed by the pandemic have forced schools to have virtual classes, if necessary and if all goes back to normal, the Concessionaire will provide the students with transportation so they can attend classes in the schools where they have been temporarily reassigned.

4.5.b.ii Economic Displacement

The Project has a program in place to support the homes in which there are business activities that have been affected by the Project. In December 2017, just in the FU 4 and FU 5, 60 groups had registered to receive assistance. Among the affected business activities were billiard halls, fruit stands, couture businesses, and crop shops. The Project has helped to get these activities restored.

The monitoring reports produced by CASI indicate that in 2020, the process to compensate for economic displacement was well underway and the affected people were closely monitored.

4.5.c Private Sector Responsibilities Under Government-Managed Resettlement

By virtue of the relevant concession agreement, the facility acquisition process is the full responsibility of the Concessionaire, which must gather data and appraise the assets, submit offers, negotiate them, and acquire the necessary plots for the Project.

A state-appointed auditor reviews the inventory and appraisals carried out by the Concessionaire and requests changes or corrections, if needed. Only with the auditor's approval can the Concessionaire submit an offer to a home or individual that will be resettled.

4.6 Biodiversity Conservation and Natural Habitats

4.6.a General

The Project's EIAs and the PAGA include a Biodiversity Compensation Plan ("BCP"), a Biotic Environment Compensation Plan, and environmental compensations for the use and exploitation of natural resources imposed by the regional environmental authority, which set the reference framework, estimates the compensation for the area affected by the Project and its types of habitats and ecosystems, the actions to compensate the identified impacts, and the monitoring and follow-up needs, each of which is in compliance with the corresponding regulatory framework. Moreover, the EMP includes fact sheets to avoid or manage the impacts on biodiversity and ecosystem services, including managing the surface ground layer; protecting wildlife, flora, and sensitive ecosystems; and managing reforestation in intervened areas.

The abovementioned compensation plans, which seek to avoid net losses of biodiversity, are being effectively implemented and report positive progress in all FUs. In late 2020, the activities under execution included, among others: conducting the reforestation in 15 hectares ("ha") in FU 1, FU 2,

and FU 3; analyzing and obtaining permits for the reforestation of almost 500 ha in the same FUs; maintaining the refurbishing works in 211 ha in FU 5; and conducting reforestation in the 8 ha in FU 5.

4.6.b Protection and Conservation of Biodiversity

4.6.b.i Modified Habitat

The Project's area of influence has 21 ecosystems, over 50% of which are grassland and crops; over 20% is part of the high Andean orobiome; the remainder corresponds to other types of crops, the middle Andean orobiome, and riparian forest.

4.6.b.ii Natural Habitat

The Project extends across very small areas of natural habitat, mainly riparian forest of the best preserved water courses in the intervened area, as the high and middle Andean rainforests are mainly utilized for agricultural activities.

4.6.b.iii Critical Habitat

The Project will not impact any critical habitat.

4.6.b.iv Legally Protected Areas and Internationally Recognized Areas

The Project does not intersect any legally protected area or internationally recognized area.

4.6.b.v Invasive Alien Species

The Project is not expected to introduce any invasive alien species.

4.6.c Management of Ecosystem Services

The Project identified 13 ecosystem services (surface and ground water provisioning; physical support to set up agricultural and cattle-raising systems; water, climate, and air quality regulation; and habitat provisioning and maintenance, among others) that are being monitored, some of which with the help of drones and aerial photographs.

The monitoring reports produced by CASI do not identify topics or issues related to the management of ecosystem services.

4.6.d Sustainable Management of Living Natural Resources

Along the 83 km to be intervened by the Project, the Concessionaire has made their best efforts to prevent the generation of adverse impacts on biodiversity and ecosystem services. They have also adopted strategies to prevent loss of biodiversity, which include: i) when possible, realigning the main road axis to avoid impacts on sensitive ecosystems; ii) using, whenever possible, the roads and

accesses already in service; iii) selectively cutting down vegetation, avoiding the removal of endemic and protected species; iv) promoting reforestation activities; and v) implementing a program to rescue and relocate sensitive flora and fauna species.

4.6.d.i Supply Chain

Whenever possible and as practicable, the Concessionaire checks that the materials used in the Project have been obtained or manufactured in conformity with Colombian laws of biodiversity protection.

4.7 Indigenous Peoples

4.7.a General

4.7.a.i Avoidance of Adverse Impacts

The Project has been proactively identifying and mitigating impacts on the following seven indigenous communities legally recognized by the Ministry of Interior: i) Cabildo Indígena Catambuco; ii) Cabildo Indígena Montaña de Fuego; iii) Cabildo Indígena in Tangua; iv) Resguardo Indígena in Iles; v) Cabildo Indígena Aldea de María; vi) Resguardo Indígena in San Juan; and vii) Resguardo Indígena in Ipiales.

4.7.a.ii Participation and Consent

The Project has carried out and recorded prior consultation activities with the indigenous communities located along the corridor, including preparing, implementing, and monitoring agreements with them. The consultation activities follow strict biosafety protocols to prevent the spread of COVID-19.

In Colombia, the prior consultation process is controlled by the Ministry of Interior. This process includes the following steps: i) request a certificate of presence of indigenous, Afro-descendent, ethnic, and rom (gypsy) communities; ii) discussion of the Project with the identified communities; iii) launch of the consultation process; iv) launch of pre-consultation; v) workshops to discover impacts and define management measures; vi) pre-agreements with the communities; vii) registration of agreements; viii) fulfillment of the agreements; ix) monitoring the fulfillment of the agreements; and x) sign-off process.

By the end of 2018, during the prior consultation process, agreements had been reached and registered with all indigenous peoples along the Project, with the exception of Resguardo in Ipiales.

The details of the agreements vary according to the community, but in general they all include some sort of financial support to develop local programs of community interest, as well as communicate the Project's commitment to provide them with employment opportunities.

As of December 2020, the Project reports the following progress in the implementation of the agreements with the six indigenous groups: i) Cabildo Indígena Catambuco (FU 5.1): 100% of the budget has been committed and 80% has been disbursed; four projects have been completed and one is still in progress; and all 15 workers agreed to be hired have been hired by the Project; ii) Cabildo Indígena Montaña de Fuego (FU 4 and FU 5.1): 96% of the budget has been committed and 94.5% has been disbursed; six projects have been completed and two are still in progress; and all 21 workers agreed to be hired have been hired by the Project; ii) Cabildo Indígena in Tangua (FU 4 and FU 5.1): 89.2% of the budget has been committed and 45.7% has been disbursed; five projects are still in progress; and 17 out of the 20 workers agreed to be hired have been hired by the Project; ii) Cabildo Indígena in Iles (FU 2 and FU 3): 100% of the budget has been committed and 85.5% has been disbursed; five projects have been completed and four projects are still in progress; and all 20 workers agreed upon to be hired have been hired by the Project, along with 28 additional people; ii) Cabildo Indígena in Aldea de María (FU 1.3): 73.8% of the budget has been committed and 63.7% has been disbursed; three projects have been completed and eight projects are still in progress; and all 35 workers agreed to be hired have been hired by the Project, along with 48 additional people; vi) Resguardo Indígena in San Juan (FU 1.3): 64.7% of the budget has been committed and 48.4% has been disbursed; two projects have been completed and eight projects are still in progress; and all 35 workers agreed to be hired have been hired by the Project, along with 22 additional people.

To date, the Project has not yet formalized an agreement with Resguardo Indígena in Ipiales, which is located at the southern end of the corridor, because the community is opposed to the construction of the toll booths in that part of the road due to the cost that using the road would mean to the community. Although the Project has removed the toll booths from the design, the community is still opposing the construction of the double lane highway. Because of this and until some sort of understanding is reached with the community, the Project has only worked on refurbishing the existing road, because this does not require prior consultation as the works do not involve any displacement of the indigenous community.

At the end of 2020, after an agreement was signed with Resguardo Indígena in Ipiales, the members of the community agreed to let the Concessionaire access the work front to perform the necessary surveys and start the refurbishing tasks. This agreement includes employing workers from the Resguardo, engaging with the community members during each visit by the Concessionaire, and getting the latter carry out the civil works at the entrance of the building of the Cabildo at the Resguardo.

To date, ANI, together with departmental authorities, maintain conversations with the Cabildo at the Resguardo Indígena in Ipiales to reach an agreement that allows the state⁴¹ to build the double lane highway. In the meantime, the Concessionaire monitors the situation.

⁴¹ It is worth noting that Ipiales is no longer part of the scope of the agreement by virtue of the agreements reached in modifications 3 and 4.

4.7.b Circumstances Requiring Free, Prior and Informed Consent

4.7.b.i Impacts on Lands and Natural Resources Subject to Traditional Ownership or Under Customary Use

The acquisition of land has affected private plots of land that are not subject to traditional ownership.

4.7.b.ii Relocation of Indigenous Peoples from Lands and Natural Resources Subject to Traditional Ownership or Under Customary Use

Almost all 84 social units from ethnic communities that were subject to involuntary physical displacement were relocated within the same place where they lived. This prevented the fragmentation of the social fabric and maintained the displaced families' access to the community infrastructure they were accustomed to using, as well as cultural sites of interest to them.

The process for resettling these families is described in the IRP. The Project has managed several issues upon the request of the indigenous communities and handled their grievances openly and in consultation with the affected parties.

4.7.b.iii Critical Cultural Heritage

The Project is not expected to impact any critical cultural heritage.

4.7.c Mitigation and Development Benefits

The Project has entered agreements with six of the seven indigenous communities affected by the works. In 2020, the Concessionaire continuously monitored the execution of the investment lines registered with these six communities. On average, 82% of the projects are in progress within those six communities, whereas 73% of the agreed amount has been disbursed to fulfill these agreements.

4.7.d Private Sector Responsibilities Where Government is Responsible for Managing Indigenous Peoples Issues

The Concessionaire has managed the affairs related to indigenous peoples in close coordination with the Ministry of Interior.

4.8 Cultural Heritage

4.8.a Protection of Cultural Heritage in Project Design and Execution

4.8.a.i Chance Find Procedures

The Project has obtained two permits to intervene in Colombian archaeological heritage: No. 8030 for the prospecting phase and No. 7610 for the implementation stage.

The Concessionaire's Archeological Management Plan, in line with the Archeological Heritage Chance Finds Management Protocol produced by ICANH, includes specific instructions that are triggered in case of chance finds, such as: i) stop the activities that led to the find; ii) do not dig or make any intervention at the find site until support arrives from ICANH; iii) isolate the area of the find to prevent other people from accessing and negatively impacting the resource and its context; iv) if necessary, call the police for back-up to protect the reported resource; v) do not remove the archeological resources found; vi) temporarily cover (with geotextile or similar materials, to minimize the impact of environmental conditions) the resources found that may be impacted by weather; vii) do not step on, manipulate, or remove the resources found; and viii) if the resources found are rock carvings, do not clean, paint, or mark the pictograms or petroglyphs.

To implement the Archeological Management Plan, the Project relies on a group of archeologists who, apart from getting directly involved in assessment and rescue tasks, train workers on how to handle chance finds.

In the last quarter of 2020, archeological monitoring activities proceeded without any major hindrances and as planned. In FU 1, FU 2, and FU 3, 40 archeological artifacts⁴² were reported found, which did not hinder development of the Project. At FU 4 and FU 5, where the road is almost fully built, archeological monitoring activities have been suspended.

To date, approximately 100,000 archeological artifacts have been recovered along the Project corridor and classified. Most of the artifacts are ceramic sherds and lithics (i.e., byproducts on stone tool manufacture).

4.8.a.ii Consultation

The Project has consulted with communities, ICANH, and academic experts about the sites to be intervened in order to determine which sections may have archaeological remains or other forms of cultural heritage. The results of this process were included in the Archeological Management Plan.

4.8.a.iii Community Access

ICANH will decide whether the community can access the archaeological resources identified during the Project, once they have been rescued.

4.8.a.iv Removal of Replicable or Non-replicable Cultural Heritage

Only ICANH or another person they delegate may remove replicable or non-replicable cultural heritage in compliance with Colombian legislation.

⁴² The most important finds are in the following places: Porvenir, Aldea de María, Tangua camp and the Catambuco area (Z5-13 and cemetery).

4.8.a.v Critical Cultural Heritage

To date, no critical cultural heritage has been recorded as being impacted by the Concessionaire's works, and the remaining tasks are not expected to impact any critical cultural heritage. However, in the event that critical heritage is identified, the chance find procedure states the activities shall be stopped until ICANH completes an assessment and rescue, if necessary, and determines the required course of action (e.g., to carry out an alternative).

4.8.b Project's Use of Cultural Heritage

The Project is not expected to use any cultural heritage. However, as per Colombian legislation, this use can only be authorized by ICANH.

5. Local Access of Project Documentation

The documentation relating to the project can be accessed at the following link:
<https://uniondelsur.website/>