

## Environmental and Social Review Summary (ESRS) Pamplona-Cúcuta Roadway Project - COLOMBIA

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

The Project involves financing, building, improving, resurfacing, and maintaining the road connecting the cities of Pamplona and Cúcuta<sup>1</sup>, located in the department of Norte de Santander, Colombia, near the Venezuelan border. The Project, running through the municipalities of Pamplona, Pamplonita, Chinacota, Bochalema and Los Patios, is expected to cover: i) the rehabilitation of 72.2 kilometers of the existing roadway; and ii) the construction of (a) a 4 km-long by-pass, (b) a 46.2 km-long second carriageway, (c) 3 tunnels, (d) 4 pedestrian bridges, (e) a new toll station, and (f) 23 vehicular bridges. The concession contract signed for the expected works has a 25-year term, which can be extended for up to 29 years and was granted in 2017 by the National Infrastructure Agency (“ANI, for its acronym in Spanish) to Unión Vial Río Pamplonita S.A.S (“UVRP” or the “Concessionaire”).

For construction purposes, this Project has been divided into six stretches or functional units (FUs) as follows: i) FU1, a 4.02 km-long one-way by-pass at Pamplona, including a 1.30 km-long two-way tunnel; ii) FU2, a 8.50 km-long second carriageway to connect Pamplona and Pamplonita; iii) FU3, a 14.95 km-long second carriageway between Pamplonita and El Diamante, including a 1.07 km-long one-way tunnel; iv) FU4, a 17.54 km-long second road between El Diamante and La Donjuana; v) FU5, a 5.92 km-long second carriageway between La Donjuana and Los Acacios, including a 392 m-long one-way tunnel; and vi) FU6, resurfacing 72.88 km of the existing road between Pamplona and Los Patios, and building a 0.60 km-long second carriageway between the Los Acacios toll station and the town of Los Acacios.

The Project's building phase started in August 2018 and almost 95% of it is already completed: FU1 and FU6 have been handed over and are fully operational; in December 2022, FU2 was delivered to the ANI to carry out the final verifications, and the remaining FUs will possibly be handed over by the end of 2023<sup>2</sup>.

The environmental and social due diligence (ESDD) process consisted in analyzing the information and documents provided by the Concessionaire, such as: i) the environmental impact assessments (“EIAs”) for FU1, FU3, FU4 and FU5 and their subsequent updates; ii) the environmental guidelines update plan (“PAGA”, for its acronym in Spanish) for FU6 and its subsequent updates; iii) the information generated during an ESDD by other lenders; iv) the technical due diligence report from August 2022; and iv) the nine environmental and social monitoring reports developed by Infrata

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<sup>1</sup> The Pamplona-Cúcuta Roadway Project (the “Project”) is part of the fourth generation (4G) concession program led by the Government of Colombia through its National Infrastructure Agency (ANI).

<sup>2</sup> The works at FU3, FU4 and FU5 are expected to finalize in May, July, and June 2023, respectively.

Limited (Infrata), as an independent environmental and social consultant (IESC)<sup>3</sup>. The ESDD also involved interviewing the Concessionaire’s representatives during an in-person visit to the works sites by an external consultant<sup>4</sup> hired by IDB Invest.

## **2. Environmental and Social Categorization and Rationale**

According to IDB Invest’s Environmental and Social Sustainability Policy, the Project has been classified as Category A because it may generate the following impacts and risks, among others: i) changes in the quality of surface water; ii) changes to the physical, chemical and bacteriological properties of groundwater; iii) variation to the phreatic surface levels; iv) creation and triggering of denudation processes; v) changes to sound pressure; vi) changes to soil characteristics; vii) changes to the landscape; viii) changes to soil usage; ix) changes to vegetation cover; x) changes to habitats; xi) changes to the wildlife composition and structure; xii) impact on infrastructure and provision of public services; xiii) changes to the economic use of land; and xiv) possible involuntary resettlement and economic displacement. 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; PS2: Labor and Working Conditions; PS3: Resource Efficiency and Pollution Prevention; PS4: Community Health, Safety and Security; PS5: Land Acquisition and Involuntary Resettlement; PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; and PS8: Cultural Heritage.

## **3. Environmental and Social Context**

### **3.1 General Characteristics of the Project’s Site**

The Pamplona-Cúcuta corridor, located in the Norte de Santander department, runs between the cities of Pamplona and Cúcuta, and takes up part of national road 55 (Sector 5505: Presidente–Pamplona), which connects the interior of Colombia with Venezuela, at the north-east border.

The Project, which runs across the municipalities of Pamplona, Pamplonita, Bochalema, Chinacota, and Los Patios, is in mountainous areas with some typical geomorphologic elements, such as hills, summits, outcrops, hogbacks, scarps, and vales. This mountain range contrasts with flat areas (valley of the Pamplonita river and terraces on hillsides) in the municipality of Los Patios.

A total of 172 ecosystems are identified along the corridor: 135 have been transformed (56.51% of the Project’s total area of influence); 32 are natural ecosystems (42.31%) characterized by terra firme dense forests and high dense shrubs of the sub-Andean orobiome of Catatumbo, and 5 aquatic ones (1.18%).

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<sup>3</sup> The reports provide a summary of the Project’s site and social and environmental management aspects, including human rights, occupational health and safety, communications, and archeology.

<sup>4</sup> Visit maid ERM on October 24-25, 2022.

According to information from the Ministry of Interior, there is no evidence of the presence of ethnic communities (indigenous, black, African Colombian, *raizal*, *palenquera* or *rom*) in the Project area.

### **3.2 Contextual Risks**

The region through which the road crosses, has a long history of armed groups operating unlawfully. In the 1980s, the “Efraín Pabón de Ejército de Liberación Nacional” group was born in the province of Pamplona, according to official sources<sup>5</sup>. This is a guerrilla group involved in drug dealings and extortion, among other illegal activities. However, many of these armed groups have allegedly moved to other municipalities in the department<sup>6</sup>; therefore, their presence would no longer be a risk for the Project.

This part of the border with Venezuela is notorious by the presence of armed actors as well as transnational organized crime groups that pace the territorial dynamics and create conflict and consequences for the population; only between January and November 2021, 80 armed actions were reported in the area<sup>7</sup>. The recurring acts of violence and the persistent armed confrontation in this bordering area force civil society to isolate, and restrict their mobility, which in turn causes food insecurity, interruptions in the basic services and restrained community autonomy over the territory. Also, internal forced displacement persists, both of individuals and groups, which leads to the violation of the rights of women, children, and teenagers, as well as those of the rural communities, indigenous populations, and social leaders, including those people that have arrived in Colombia from Venezuela.

Women and girls are still the most exposed to sexual exploitation and people trafficking. There is evidence of an increase in gender-based violence, domestic violence and people trafficking with impact on the migrants from Venezuela as well as on victims of armed conflict.

## **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 Project maintains and operates an Environmental and Social Management System (ESMS) to identify, assess, mitigate, and control the risks and impacts associated with its execution, mainly during the construction activities. Also, it continuously implements the environmental programs as established in the EIAs and the PAGAs, to prevent, control and mitigate the potential environmental impacts related to its activities. The ESMS, as documented in the Integrated Management Plan (IMP) and updated in 2019, includes policies, plans and procedures to address the Project’s undesired impacts and describes the related management measures.

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<sup>5</sup> Colombia’s VP Office, 2002

<sup>6</sup> Documented in the risk report of the Misión de Observación Electoral (MOE) of February 2022.

<sup>7</sup> Protection Analysis, December 2021. Norte de Santander Department, Colombia. Colombia Protection Cluster.

To date, the Project has all the authorizations and permits required by Colombian law. It has obtained the environmental licenses from the National Environmental Licenses Authority (“ANLA”, for its acronym in Spanish) for FU1, FU2, FU3-4-5, and managed the changes accordingly, when necessary. It also obtained all environmental permits for FU6 from the Corporación Autónoma Regional de la Frontera Nororiental (“CORPONOR”, for its acronym in Spanish).<sup>8</sup>

Since it started, the Project has reported 20 contingencies before the ANLA, of which 10 have already been addressed and resolved (closed), most of which were related to slope instability and sliding in the areas where the unused excavation material is laid out (“ZODMES”, for its acronym in Spanish), incidents that have minor effects on some natural water courses, but were timely corrected with appropriate measures, such as profiling the slopes or repairing drains in the ZODMES.

The Project, however, is undergoing three environmental penalization processes pending resolution: i) allegedly excavating to set up piles, before being approved by the environmental authority with an amendment to the environmental license (FU2); ii) mixing the infiltration water from one of the tunnels with nondomestic wastewater generated at the end of tunnels and its discharge into the San Antonio stream, exceeding the flows authorized by the related environmental license (FU1); and iii) not having reported to the ANLA, the reports of the landslides that occurred in 2019, within 24 hours after the contingency. To date, the Concessionaire has presented the defenses of the open sanctioning process for FU2 indicating that the piling method used (*caissons*)<sup>9</sup> is commonly the foundation of the bridges and, therefore, its use does not constitute an environmental infraction. Although the Project is awaiting the pronouncement by the authority on this discharge, the ANLA would only have issued writs of initiation and would not have filed any charges or sanctions for the other two processes.

#### 4.1.b Policy

The Project’s IMP comprises an Energy, Environmental and Quality Policy; an Occupational Health and Safety Policy; a Policy to Prevent the Use of Tobacco, Alcohol and Psychoactive Substances; a Road Safety Policy; and a Social Policy.

These policies are displayed in offices, in the close TV circuit (“CTVC”) area in the Pamplona tunnel, and are disclosed during the staff onboarding and re-onboarding, as well as by health, safety and environmental (“HSE”) professionals during preoperative briefings.

#### 4.1.c Identification of Risks and Impacts

The main instruments to identify the Project’s impacts are the three EIAs required by the ANLA. The first EIA relates to FU1 (Pamplona by-pass); the second one to FU2 in the Pamplona-Pamplonita stretch, which was supplemented by EIAs for two updates approved in 2019 and 2020; and the third

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<sup>8</sup> These permits arise from Resolution No. 788 of 2019 (riverbed occupation) and Resolutions No. 183, 185, 186, 187 of March 2020 (4 forest use permits).

<sup>9</sup> The "caissons" are foundations designed to support horizontal or inclined loads in addition to the vertical load, which are frequently used in deep and high-velocity water currents, as occurs in piers for bridges over rivers that have to support a lateral load due to wind force on the superstructure.

one to FUs3-5, in the Pamplonita–Los Acacios stretch and the respective EIA supplements for the four environmental license updates approved in 2020 and 2021.

The EIAs identify the environmental and social impacts to be generated during the Project lifecycle; management measures have been established that commensurate with the magnitude and intensity of the impacts.

As it only involves rehabilitation activities, no EIA, but a PAGA, was required for FU6<sup>10</sup>. This document identifies and assesses the risks and impacts of this road section and includes a set of environmental and social management measures to control them. In accordance with the provisions of current legislation for road projects that require PAGA, the Concessionaire has obtained the necessary environmental permits from the environmental authority with jurisdiction in the FU area.

#### 4.1.c.i Direct and Indirect Impacts and Risks

The EIAs for the five FUs identify the following impacts as the most relevant ones: i) changes to the quality of surface water; ii) changes to courses; iii) changes in water availability; iv) variation to the phreatic surface levels; v) creation and triggering of denudation processes; vi) changes to air quality; vii) changes to soil characteristics; viii) changes to land use; ix) changes to landscape quality; x) changes to vegetation cover; xi) changes in ecosystem connectivity; xii) intervention in environmentally sensitive areas; xiii) changes to endemic, threatened, prohibited flower species, as well as to those of ecologic, economic and cultural importance; xiv) impact on infrastructure and provision of public services; xv) changes to the economic use of land; and xvi) involuntary resettlements and economic displacements.

The impacts generated during the construction phase are managed with the Project's environmental management plans ("EMPs").

The exogenous (external) and endogenous (internal) risks associated to the Project were assessed in the Disaster Risk Management Plan ("DRMP"), which identifies exogenous risks, such as: i) earthquakes; ii) erosive processes and mass removal; iii) wildfires; iv) electrical storms; v) gales; vi) floods; vii) flash floods; viii) climate change; ix) desertification; and x) social and cultural risks. Some endogenous risks were identified, such as: i) events associated to hazardous substances spills; ii) ammonium nitrate fuel oil ("ANFO") explosion in tunnel blasting; iii) fuels and oils; iv) events associated with blasts in the tunnel; v) events associated with electrical sources; and vi) events associated with traffic accidents and structural faults. They are managed by implementing the Contingency and Emergency Plan ("CEP") for each of the scenarios identified.

#### 4.1.c.ii Analysis of Alternatives

Since 1997, the National Roads Institute ("INVIAS", for its acronym in Spanish) has presented the environmental diagnosis of alternatives ("EDA") for FU1; in 2018 the ANLA requested the corridor

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<sup>10</sup> The PAGA is the technical environmental and social management instrument for projects that do not require an environmental license to be executed. This instrument contains environmental management programs that consider the environmental impacts that each project can cause depending on the physical, biotic, social, economic, and cultural characteristics of its area of direct influence.

layout to be optimized to reduce interventions in local, national, and regional protected areas as well as in sensitive ecosystems. The final layout was optimized for smaller impact on the abovementioned areas.

A declaration on the analysis of alternatives was requested for FU2, FU3, FU4 and FU5, which was obtained in 2014. The Project has also assessed several construction methods<sup>11</sup> to avoid and mitigate undesired impacts.

#### 4.1.c.iii Cumulative Impact Analysis

A cumulative impact analysis<sup>12</sup> was carried out to identify, in addition to those produced by the Project, the potential aggregated impacts that other projects, works or activities could generate to the valued environmental components (VEC). In this regard, the Project: i) identified the VECs; ii) selected 28 projects licensed by the Environmental Authority (including one from the hydrocarbon<sup>13</sup> sector and 13 from the mining sector) whose effects could generate cumulative impacts in the Project's area of influence; iii) established a baseline for VECs; iv) performed an analysis of cumulative impacts on the VECs; v) assessed the significance of the expected cumulative impacts; and vi) set up measures to manage the identified impacts.

The analysis identified two main cumulative impacts: changes to the soil characteristics; and creation and triggering of denudation processes. All the identified impacts are being managed with the FUs EMPs and the PAGA. Moreover, the Project has organized training sessions for the communities in the Project's area of influence on the preservation of ecosystem services.

#### 4.1.c.iv Gender Risk

The gender gap in Latin America and the Caribbean is enormous; it is defined as differential, unequal access to work, education, economic and political participation opportunities based on sex or gender. This gap is supported by widespread cultural rules for what is acceptable for men and women and is exacerbated by weak legal safeguards or deficient social response. The gender gap leads to gender-based discrimination, unequal access to public services, to educational differences, to work and pay gaps and lower rates of political participation. Colombia's gender gap index (0,73) is tied with three other countries in 12th place out of 26 countries in the region.<sup>14</sup>

Gender-based violence and harassment are also a big problem in Latin America and the Caribbean, with the highest rates worldwide. Brazil, Mexico, Argentina, Peru, El Salvador and Bolivia account for 81% of the cases worldwide. Twelve women are murdered every day in the region. A total of 182 femicides were committed in Colombia in 2020, the fifth largest amount in the region. Gender-based violence in Latin America has been exacerbated by the COVID-19 pandemic, which is reflected in the

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<sup>11</sup> Such as tunnel construction, which reduces the intervention of vegetation covers; viaduct construction, which reduces the intervention and movements of land; and changes in layout design to avoid going through areas of interest for the community, such as tourist (thermal springs) and recreation areas.

<sup>12</sup> Cumulative impact analysis and management, Pamplona–Cúcuta dual carriage, September 2020.

<sup>13</sup> Easement of the Cañón Limón Coveñas pipeline (Environmental License file LAM 1082)

<sup>14</sup> [Number of femicides in Latin America by country 2019 | Statista..](#)

larger number of phone calls to the emergency hotlines about domestic violence incidents in many countries in the region.<sup>15</sup>

As of the time of the visit, the Project had not recorded any complaint regarding sexual harassment or gender-based violence.

The Project will document an analysis of possible gender-related risks and impacts that may affect women, girls, and sexual and gender minorities, and will implement gender programs, if applicable.

#### 4.1.c.v Gender Programs

The Project has some mechanisms in place to control gender risks, such as: i) human resources policies and procedures that involve committing to human rights, equality and non-discrimination, diversity and inclusion; ii) the provision of OHS elements; identification of occupational and environmental risks; and basic hygiene and sanitary measures that are sufficient and gender-independent; iii) participation and engagement of women in different work areas and positions; iv) protocols to prevent and act on cases of harassment in the workplace; and v) mechanisms to address requests, grievances, claims and suggestions (“RGCSs”) for staff, contractors and other stakeholders.

Also, the Concessionaire is participating in the program “Equipares” within the Gender Equality Management System (“GEMS”) developed by the Ministry of Work and the United Nations Development Program (“UNDP”), aimed at promoting changes across the organizations that can close the gender gaps. This program is one of a kind in Colombia and is compliant with Law No. 1257 of 2008<sup>16</sup>. To date, audit processes are expected to be carried out to obtain the Equipares seal.

#### 4.1.c.vi Exposure to Climate Change

The Project determined its climate change risk based on the municipal-national map of climate change risk created by the Hydrology, Meteorology and Environmental Studies Institute (“IDEAM”, for its acronym in Spanish), the UNDP and project “Tercera Comunicación Nacional”. The assessment involved identifying threat and vulnerability levels to determine the level of risk caused by climate change for each FU and their areas of influence and concluded that 47% of the Project presents very high and high risks.

The measures to mitigate the risks of climate change exposure were included in the Project’s final design and encompass from the realignment of the road layout up to structures for anchoring and containment at cuts and fillings (where needed). Moreover, there is a DRMP including all the Project’s exogenous risks, and a CEP with the measures to respond to these natural threats and mitigate their effects.

Nonetheless, the Concessionaire will identify the climate change risks and adaptation opportunities for all Project stages.

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<sup>15</sup> [COVID-19: rise of gender violence in Latin America | Statista.](#)

<sup>16</sup> Law that enforces the adoption of regulations to guarantee that all women lead a violence-free life, both in public and in private; can exercise the rights recognized in the national and international legal system and can access administrative and court procedures for their protection, and that the necessary public policies are adopted.

#### 4.1.d Management Programs

All FUs have management and monitoring plans to address the risks and impacts identified for the Project (EIAs and the PAGA). Some of these programs are related to: i) soil management; ii) water management; iii) air management; iv) access road management and fitting; v) tunnel construction; vi) flora and fauna conservation, vii) habitat protection and conservation; viii) aquatic ecosystem management; ix) customer care; x) Project staff education and training; xi) community information and engagement; xii) support for corporate management capacity; xiii) training, education and awareness-raising in the Project's nearby community; xiv) road safety education; xv) effects on third parties; and xvi) site and public services infrastructure management. These programs are deemed suitable to handle the Project's impacts, are being effectively implemented and have been updated and corrected when needed.

The residual impacts on the biota (those remaining after the mitigation measures have been applied) included in the Biota Compensation Plan are in the process of being implemented for FU1 and are expected to be approved by the environmental authority for FU2 and FU5.

#### 4.1.e Organizational Capacity and Competency

The Project has a well-defined organizational structure, with skilled professionals to manage environmental, social, and health and safety issues. The Environmental and Social Department is led by a professional supported by a social management head, four social professionals, seven special assistants, one environmental coordinator, one biota professional, a hydrogeologist (for abiotic matters), a specialist in geographic information systems and an environmental management support professional.

The Health and Safety Department has, apart from a manager, two inspectors and a documentation management assistant, a coordinator, and an on-site technologist. The teams have in place a joint operational structure with the engineering, purchase, and construction ("EPC") contractor and UVRP. This structure has well-defined roles and responsibilities to perform their jobs and make sure the ESMS is implemented. Additionally, as part of the IMP, roles and responsibilities are assigned to the positions that are directly related to the systems.

#### 4.1.f Emergency Preparedness and Response

The Project's three EIAs include the DRMP and the CEP as strategic, operational and information tools to prevent, control and resolve the emergencies that may arise due to exogenous and endogenous threats during Project construction, operation, and decommissioning.

The Project prepared a risk analysis for each FU, which proposes mitigation and resolution measures for each possible scenario based on the threats identified.

The Project has suitable physical and human resources to address emergencies on the road and to guarantee short response times. These resources are strategically located along the corridor and available 24/7 and include: i) two security vehicles; ii) two mobile workshops; iii) two cranes for

small vehicles; iv) two cranes for large vehicles; v) two ambulances; and vi) a lowboy to transport heavy vehicles or machinery, and construction equipment.

The Project trains its employees and emergency brigade as part of the implementation of the DRMP and the CEP, with dedicated resources in emergency procedures, firefighting actions, etc.

#### 4.1.g Monitoring and Review

The Project's environmental and social management system, which uses the inputs from the EIAs and PAGA, establishes monitoring and review plans to: i) restore geotechnical stability; ii) handle materials at the ZODMES; iii) manage construction materials; iv) protect the landscape; v) manage solid, domestic, industrial and special waste; vi) treat liquid effluents; vii) manage water sources; viii) control sources of noise and emissions; ix) protect the surface water and groundwater; x) prevent accidents; xi) handle explosives and blasts; xii) remove vegetation cover and use forests properly; xiii) protect the fauna and habitat; and xiv) manage social management programs and indicators.

The Project's monitoring and review system is comprised by several internal and external players. The Concessionaire, the main contractors and the Inspector are the internal ones. The external ones are the ANI, CORPONOR, the ANLA, and specific government agencies, such as the Colombian Institute of Anthropology and History (ICANH) for cultural heritage and archeological issues.

Also, and in compliance with Annex 8 of the concession contract, there is an external control and monitoring representative of the affected population, called *veeduría*<sup>17</sup>.

Additionally, the Project is monitored by the ANI, through the Inspector, and the Project's financiers, either directly or through the IESC.

#### 4.1.h Stakeholder Engagement

##### 4.1.h.i Disclosure of Information

The Project's ESMS includes in-person and remote modules to inform the communities affected by the Project. This information has been included in the EIA, in the social and economic EMP and in the community engagement and information program, which calls for the creation and distribution of communication pieces (flyers, posters or letters), as well as the use of the mass media (radio, TV, newspapers and social media) to distribute the information that needs to be disclosed for the sake of the Project and the communities.

During the external consultant's visit, it could be confirmed that the Project disclosed information in a timely manner and with the necessary means and resources, by approaching leaders and members of the communities within its area of influence. During the isolation period instructed by

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<sup>17</sup> Law 850 of 2003 defines the *veedurías* as the representative democratic mechanism that allows citizens or different community organizations to exercise oversight over public management, with respect to the authorities, administrative, political, judicial, electoral, legislative and control bodies, as well as public or private entities, national or international non-governmental organizations operating in the country that are responsible for the execution of a program, project, contract or the provision of a public service.

the Colombian government during the COVID-19 pandemic, the Concessionaire engineered communication strategies using virtual communication platforms, such as Microsoft Teams, as well as other ways to connect with the communities that do not have Internet services, so that the engagement of all stakeholders was guaranteed.

In 2022 the local press reported on several demonstrations by the people from the municipalities of Mutiscua, Silos, Chitaga, Cacota and Pamplona, who opposed to the new toll station on the road. These demonstrations were peaceful and managed by the Concessionaire, the ANI and government representatives, who are looking into ultimate solutions for the rates issues and trying to reach agreements with the communities.

The community engagement and information program involves kick-offs, progress and closure meetings, which are as frequent as necessary based on the duration of each Project phase, anticipating extraordinary meetings if applicable. Minutes are prepared at each one of these meetings, where the topics discussed, and the agreements reached (if applicable) are documented.

#### 4.1.h.ii Informed Consultation and Participation

The Project has five customer care offices along the corridor and integrated into the grievance mechanism. It also has a community engagement and information program, which details the process to disclose the environmental and technical aspects, as well as the issues that are of interest for the community. Apart from the in-person meetings, the radio, television, and newspapers are used as required, as well as quarterly newsletters, posters, and flyers (distributed at information points regularly used by the communities), and continuous updates in the Project's web page.

To date, as part of the consultation and participation activities, more than 240 progress and extraordinary meetings have been carried out, as well as almost 50 monitoring meetings with the overseers at all six FUs. These processes are documented with minutes and attendance lists.

#### 4.1.h.iii Indigenous Peoples

According to the local legislation, the Project asked the Office of Indigenous Affairs from the Ministry of Interior to submit a document certifying the presence of indigenous, African-Colombia, *raizal*, *rom* and *palenquera* communities within the Project area. The authority replied that there is no record of the presence of these communities along the corridor and in its area of influence; therefore, a free, prior, and informed consultation was not necessary to obtain the environmental license.

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

Given the characteristics of the Project, there has been no need for a government-led stakeholder engagement process.

#### 4.1.i External Communication and Grievance Mechanisms

##### 4.1.i.i External Communication

The Concessionaire has in place an external communication system that relies on several resources, such as television, radio, newspapers, and news segments on digital platforms, especially YouTube. On TV six monthly news bulletins are broadcasted by regional channels on the last Friday of every month. A community engagement show is broadcasted on the radio on the first Saturday of every month, which is supplemented — if needed — with radio ads inviting the community to events (such as meetings) or offering it information of interest. The company is featured (paid ads for the company) twice a year in the newspaper *La Opinión*. The Concessionaire's communications team prepares a quarterly newsletter (already on its 19th release) to be distributed in the area of influence, which features topics that are relevant for the Project. Additionally, the Project has a corporate video and a brochure with activities.

##### 4.1.i.ii Community grievance mechanism

The Project currently has five branch offices<sup>18</sup> to address the RGCSs directly, as well as a telephone line and an e-mail address.

About 2,000 RGSCs have been received so far, almost all of which have been resolved (96%); the remaining 4% is being dealt with. The RGSCs are included in a database with relevant information, such as date they are received, comments, status, who submitted them, and their progress.

##### 4.1.i.iii Provisions for Addressing Vulnerable Groups' Grievances

The RGDC system is prepared to receive grievances from any vulnerable group, even though it has not been specifically designed to do so as the Project does not cross any regions inhabited by those groups (indigenous, afro-descending, ethnic, *rom*, *palanqueras*, etc.). To make it possible, the Concessionaire's social management team travels along the Project's area of influence to collect requests, grievances or claims directly from vulnerable people or families<sup>19</sup>.

##### 4.1.i.iv Ongoing Reporting to Affected Communities

The Project uses different resources to communicate the relevant information: WhatsApp groups, formal and informal meetings, publications in different media, etc. In general terms, the population is satisfied with the level of information provided and the Project's transparency in the actions of its social management team.

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<sup>18</sup> The satellite customer service offices are located in: i) the center, Pamplona (FU1); ii) Quinta, Pamplonita (FU2); San Rafael, El Recuerdo, Pamplonita (FU3); iv) La Cordialidad, Bochalema (FU4); and v) El Carmen, Chinácota (FU5).

<sup>19</sup> This group includes very poor people, elderly people, single parents, families with many children, families living in precarious conditions, etc.

## 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 personnel management policy, updated in August 2022, with inclusive language and the following basic principles, among others: i) an adequate work relationship framework; ii) value offering for the selection, hiring, promotion and retention of human talent based on equal opportunities, mainly in terms of gender; iii) an adequate compensation system; and iv) nondiscrimination and respect for diversity.

The Human Resources Management System includes an Emotional Benefit Policy<sup>20</sup>, a personnel selection policy, a disciplinary procedure, a handbook for contractors and a work relationships manual, as well as training procedure, among others.

The Project disseminates its human resources policy and procedures at the personnel onboarding and re-onboarding sessions. Also, its vision, mission and work rules are displayed at all its offices.

In compliance with its contractual obligations, UVRP encourages hiring people from the Project's area of influence to contribute to local employment. By June 20, 2022, the Project had hired 2,526 workers, 1,580 of whom are engaged by the EPC (1,093 from the DIA), 173 by UVRP (139 from the DIA<sup>21</sup>) and 773 are the EPC's contractors (519 from the DIA). About 9.5% of the workforce was made up by women as of June 2022.

#### 4.2.a.ii Working Conditions and Terms of Employment

The Concessionaire's Internal Work Rulebook (IWR), in force since October 2017, provides the measures to enforce: i) the employment conditions for workers; ii) the work schedules for clerical and operational staff; iii) overtime and night shifts; iv) days off that are mandatory by law; v) holidays; vi) leaves of absence; vii) salaries; viii) healthcare services; ix) safety measures and work risk; x) measures to avoid all kinds of child labor; xi) disciplinary procedures; xii) grievance mechanisms; and xiii) mechanisms to prevent harassment in the workplace, including internal resolution procedures. These actions are informed to the workers at onboarding and re-onboarding.

All the new hires are currently working on three-month contracts, which can be extended up to three times, when they become permanent. This seeks to retain human talent and train them in the necessary skills, considering retrenchment as the last resort in the management chain.

Since the labor hiring process is focused on the Project area and prioritize the municipalities within its area of influence, there was no need to set up staff camps.

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<sup>20</sup> This policy establishes additional days off to the maternity/paternity leave, on birthdays, for marriage and for Christmas holidays.

<sup>21</sup> Direct area of influence (DIA).

#### 4.2.a.iii Workers' Organizations

Colombian laws protect the workers' right to establish workers' organizations. The Concessionaire's IWR forbids limiting or somehow exercising any pressure on the workers that have decided to establish or join such organizations. However, since the Project started, no workers' organizations have existed nor have collective bargaining agreements been entered with the workers.

As required by Colombian regulations, all Project workers may be part of the Occupational Health and Safety Committee ("COPASST", for its acronym in Spanish)<sup>22</sup>. Also, and in line with the legislation in force, the Project has created a Labor Coexistence Committee<sup>23</sup>.

#### 4.2.a.iv Nondiscrimination and Equal Opportunity

The Project has established internal behavior standards through its Code of Conduct, which emphasizes the respect for equality and nondiscrimination based on race, sex, ideology, nationality, language, religion, sexual identity, age, disability, political or union affiliation, or any other personal or social condition of the worker. The Project has an inclusion and diversity policy that encourages an inclusive work environment as well as respect for individual differences. Nonetheless, the Concessionaire will update its IWR to remove the provision about tasks that are forbidden for women.

The Concessionaire is implementing the program "Liderando Mi Desarrollo", focused on department leaders (employees with counselees) joining as new hires. This group includes site agents, CCTV operators and employees at the Operations Control Center ("OCC"), etc. Moreover, female employees' leadership skills are strengthened with a workshop called "Mujeres Poderosas", where they learn to bolster their strengths and skills.

The Project is currently participating in the GEMS' "Equipares"<sup>24</sup> program, which involved developing surveys, focus groups organized and an action plan prepared to meet the requirements for certification on Gender Equality System.

Women account for almost 10% of Project workforce. Some managerial positions are occupied by women, such as the legal, human resources, environmental management, social management and financial management areas.

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<sup>22</sup> According to Resolution No. 2013 of 1986 of the Ministry of Work and Social Security, and the Ministry of Health, any company or institution, whether publicly or privately run, with ten or more employees, must create the Occupational Health and Safety Committee (COPASST), which comprises workers' and employees' representatives to promote and monitor compliance with the occupational health and safety standards.

<sup>23</sup> By virtue of Law No. 1010 of 2006, the Co-Work Committee, made up of people working for a public agency or a private company, oversees receiving and addressing the grievances that include situations of potential harassment in the workplace.

<sup>24</sup> Equipares is a certification program which recognizes companies and organizations that correctly implement the gender equality management system. This certification is issued by the Ministry of Labor and the Presidential Advisory Group for the Equity of Women in Colombia, with the technical support of the United Nations Development Program (UNDP).

#### 4.2.a.v Retrenchment

Since the Project started, the work plan has been disclosed to all direct staff and to the contractors' personnel as well. This has been done through newsletters that describe how much the Project has progressed when compared to the plan and give details about the types of worker profile to be needed, according to the expected activities, and for how long they will be hired.

The Project's People Management Framework encourages a long-term employment policy that responds to every project's dynamic and lifecycle phase. In this sense, the Concessionaire takes reasonable measures to avoid collective layoffs. However, when this is not possible, it looks at relocating the personnel internally through a job reassignment or promotion process. This has been documented in the human resources plan to manage retrenchment.

The first step — and priority — is to relocate the workforce in FUs that are still under execution; when this is not feasible, opportunities are considered to relocate or move the personnel to other projects in other places in the country, and, only when the abovementioned options are unsuccessfully exhausted, the staff is retrenched. In any case, the Concessionaire encourages training and certifications for unqualified labor from the SENA<sup>25</sup>, so that they have better job opportunities in the future.

The Concessionaire notifies employees when they will be made redundant and makes all the payments enforced by law, making sure the worker receives them timely.

#### 4.2.a.vi Grievance Mechanism

The Project has in place a procedure to receive internal RGDCs, which is accessible for direct employees, and workers engaged by contractors. In order to receive grievances, it has: i) actual mailboxes (exclusively and safely kept by the Human Resources Department); ii) a specific email address; iii) a section in its web portals; and iv) a protocol to capture these grievances at the customer care points. Nonetheless, the Concessionaire shall update its mechanism and procedure to receive anonymous grievances.

In October 2022, the RGDC consolidated matrix for the Project did not record any major grievances associated with work conditions or issues, as the employees prefer to deal with them directly with their bosses. In any case, some of the grievances received are linked to delays in payments to subcontractors, which were adequately resolved.

Likewise, in compliance with Colombian legislation, workplace harassment cases are dealt with by the Workplace Anti-Harassment Committee with a predetermined process to capture, analyze and resolve those issues with a zero-tolerance stance.

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<sup>25</sup> The National Learning Service ("SENA", for its acronym in Spanish) is government institution offering technical, technological and complementary education at no cost.

#### 4.2.b Protecting the Workforce

##### 4.2.b.i Child Labor

The Concessionaire, in its Code of Conduct, confirms its commitment to not using child labor, or any product or service in its normal course of business that has been created with child labor; thus, observing the International Labor Organization's regulations regarding employment of minors throughout the supply chain.

The prohibition to use child labor is expressed in the IWR and in the health, safety, environmental and quality ("HSEQ") requirements checklist, which requires the contractor to make sure they will not employ minors in any way that constitutes economic exploitation, that may be dangerous, that interferes with the child's education or that may harm the child's health, or their physical, mental, spiritual, moral or social development. Also, according to the applicable regulations, all contractors that wished to hire workers younger than 18 years of age shall be supported by the Ministry of Labor and make sure that they are not assigned dangerous tasks.

There was no indication in the ESDD that minors have been hired for the Project (the Concessionaire, the Inspector, contractors, and subcontractors).

##### 4.2.b.ii Forced Labor

The Concessionaire, in its Code of Conduct, expresses its commitment to not using forced labor which occurs under coercion and, in compliance with its supply chain management policy, to not using suppliers, contractors or third parties that have these practices in place. The HSEQ requirements checklist asks for a statement from the contractor that they will not employ unpaid labor or workers resulting from people trafficking activities.

The ESDD did not find any evidence of involuntary work or forced labor in the Project (the Concessionaire, the Inspector, contractors, and subcontractors).

#### 4.2.c Occupational Health and Safety

The Project has ISO 14001<sup>26</sup> and ISO 45001 certifications<sup>27</sup>. The latter was recertified for UVRP and is valid until January 2025. The Concessionaire has an occupational health and safety ("OHS") management system in place, which: i) includes a regulatory framework; ii) defines responsibilities; iii) includes mechanisms to identify potential risks and hazards in all work phases; iv) creates an epidemiologic surveillance system; v) requires health monitoring; vi) sets forth hygiene measures; vii) promotes OHS culture and leadership among workers; viii) promotes wellbeing and healthy lifestyles; ix) commits to complying with country-specific and legal requirements; x) encourages communications and engagement with the local communities; xi) facilitates workers' consultation

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<sup>26</sup> ISO 14001 is a certification granted by the International Organization for Standardization for Environmental Management Systems of companies that have proven to be able to manage adequately the environmental risks that are inherent to the company's activities.

<sup>27</sup> ISO 45001 is the new ISO certification for occupational health and safety management systems that came to replace OHSAS 18001 (operational health and safety evaluation series).

and engagement; xii) establishes OHS measurable goals; and xiii) makes decisions for continuous improvement.

The OHS management system, which has all the management elements needed to prevent and mitigate risks, seeks to guarantee a safe, healthy workplace for the employees. This system, which is applicable to all direct workers as well as contractors and subcontractors involved in the Project, includes a procedure to report and investigate labor incidents and accidents that covers everything from risk identification, root cause analysis and identification of applicable corrective measures up to result assessment. Additionally, the Concessionaire has implemented its "Plan Padrino", a system to improve the adaptability and the awareness around occupational health and safety issues of new employees joining the Project.

The Project reported two fatal events in 2021 (one associated to work at heights and another to debris projection during tunnel excavation activities), which, in accordance with the legislation in force, were reported to the relevant authorities, and its root causes were investigated. Because of this, an action plan was set up, which included the following aspects, among others: i) review and improvement of processes and procedures<sup>28</sup>; ii) management of loss control due to work accidents; iii) strengthened commitment to self-care and good behavior; iv) leaders' encouragement of health and safety elements in all work fronts; v) implementation of the "Plan Padrino"; and vi) communication of lessons learned. No work accidents in critical activities have been reported since this action plan was executed.

Simultaneously, the Project has been implementing an operational discipline methodology that includes the following, in order of preference: i) focus on safe behavior; ii) present leadership and indicator-oriented loss control; iii) compliance with the legal regulations; iv) a workers' sense of belonging to the organization and their commitment to health and safety; v) compliance with regulations (provision of fall prevention and personal protection equipment); and vi) commitment to achieving zero serious accidents. Additionally, this is supported with human resources provided by the workers compensation insurance company<sup>29</sup> for training in emergency response (extinguishers handling, firefighting, first aid, etc.) and monitoring critical activities (work at heights, work in confined spaces, hot works, etc.).

The Project has one safety inspector for each contract or for every 30 workers at a work front. Also, it has a work in heights training center as well as procedures to make sure that, apart from the expertise declared in their résumés, the workers involved in this type of work i) are medically fit; and ii) have passed the theoretical and practical tests to validate their skills to perform the proposed tasks.

To date, the Project has reported a dramatic reduction in the accident rate as compared to the previous year; and no incident, accident or quasi-accident has been reported in connection with any critical activities.

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<sup>28</sup> The procedure for tunnel work was specifically updated to avoid workers' exposure to risks, replacing human beings with robots for concrete throw.

<sup>29</sup> Group of entities aimed at protecting and ensuring the lives of employees in companies, and that have contact with the employer and cover occupational diseases and accidents (regulated by Law 1295 of 1994).

#### 4.2.d Provisions for People with Disabilities

The Project's administrative and operational facilities (offices, OCC, CCTV, and toll stations) have ramps, paths, toilets, and equipment that are suitable for the needs of disabled staff. The Project has no limitations to hiring people with disabilities or handicaps.

#### 4.2.e Workers Engaged by Third Parties

In line with the legislation in force and the 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 nondiscrimination, no exploitation, no child labor, no forced labor, decent pay, and work security.

Workers engaged by third parties have the same benefits and obligations as those hired by the Concessionaire, and the employment conditions are checked against the HSEQ checklist for the Project.

#### 4.2.f Supply Chain

To monitor the purchase of goods or services, the Project follows a procedure for purchases and subcontracting in concessions, which includes a HSEQ requirements checklist applicable to suppliers, contractors, and subcontractors. When checking these requirements, the purchases coordinator carries out a before-and-after assessment of the suppliers, contractors, and subcontractors. Additionally, the Contractor Handbook specifically states that suppliers, contractors, and subcontractors must comply with the applicable labor legislation, as well as with the Concessionaire's policies, manuals, and codes of conduct.

To prevent child and forced labor, the Project demands that before, during and after onboarding suppliers, they shall submit copies of the following documents: résumés, contracts, OHS system documents, payroll slips, evidence of payment of other contributions (healthcare, workers' compensation insurance) and final payroll processing in case of retirement.

### 4.3 Resource Efficiency and Pollution Prevention

#### 4.3.a Resource Efficiency

##### 4.3.a.i Greenhouse Gases

Since 2018, the Project has calculated its Scope 1<sup>30</sup> and 2<sup>31</sup> greenhouse gas (GHG) emissions following two methodologies. The first one is defined by the Green House Gases Protocol, which is mainly based on emission factors estimated by the US Environmental Protection Agencies (EPAs), whereas the second one is supported

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<sup>30</sup> Scope 1 emissions are those coming from the Company's own sources or are controlled by the Company, such as the consumption of fossil fuels at fixed and/or mobile sources, unintentional leaks from AC equipment, etc.

<sup>31</sup> Scope 2 emissions include those indirect ones related to the energy bought and consumed by the Company.

by the application STORM, developed by the city of Bogota Mayor's Office, which considers the country's emission factors and relies on the methodologies developed by the World Resources Institute and the World Business Council for Sustainable Development.

The total emissions for 2020 (16,658.72 t CO<sub>2</sub>/year) and 2021 (22,041.98 t CO<sub>2</sub>/year) are below the 25,000 t CO<sub>2</sub>/year threshold defined for infrastructure projects. Nevertheless, the Project will adjust and document the effectiveness of the actions proposed in the National Emission and Absorption Inventory of Greenhouse Gases<sup>32</sup> of 2021 in terms of GHG emission reduction.

#### 4.3.a.ii Water Consumption

The Project has been authorized to abstract water for industrial use during the construction phase, as part of the environmental licenses for FU1 to FU5. Moreover, the Project has included water efficiency and water management measures in its EMP, PAGA and the water efficiency and savings plans as demanded by Colombian regulations. However, the Project did not use those authorizations because it considered that the quality of the water from the sources available in the area of influence was not good enough for the required industrial use. So water is provided for all the Project by the contractor T&J E.S.P S.A.S, who has all the relevant authorizations.

The Project requires about 110.000 m<sup>3</sup> on average per year, which clearly drops as the FUs start operating and the water efficiency measures are implemented<sup>33</sup>.

#### 4.3.b Pollution Prevention

The demand for natural resources as well as their utilization and effects on them have been established for Project execution. The necessary measures to avoid or minimize the outpour of pollutants into the water, the air and the soil have been identified. Monitoring actions have been included for the most representative quality parameters in the relevant monitoring plans. The air, noise, water, and soil quality baseline values are defined both in the EIAs and the PAGA.

In September 2020<sup>34</sup>, the Project recorded a contingency related to an increase in infiltration and effluent volumes due to the construction of the tunnel in Pamplona (FU1). Since then, and in response to the ANLA's<sup>35</sup>, requirements, the Project has been implementing the following additional measures: i) the water quality monitoring frequency has been changed at San Antonio gully from biannual to monthly; ii) reports have to be submitted every six months to show how the ecosystem services have recovered with respect to the situation prior to the tunneling tasks; iii) reforestation actions have been taken with species that help the soil to recover; iv) a list of users of all the affected water systems has been prepared; v) communications with community leaders and

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<sup>32</sup> [http://documentacion.ideam.gov.co/openbiblio/bvirtual/023421/cartilla\\_INGEI.pdf](http://documentacion.ideam.gov.co/openbiblio/bvirtual/023421/cartilla_INGEI.pdf)

<sup>33</sup> Measures, such as inspecting water tanks, inspecting, and controlling leaks, maintaining pipelines and campaigning in favor of saving water among the workers, have been in place to minimize water consumption.

<sup>34</sup> This event triggered an environmental sanction in 2021 for alleged facts, like: i) mixing infiltration waters with non-domestic wastewater at the entrance of Pamplona tunnel, to be later poured into the San Antonio gully; ii) exceeding the effluent volumes as authorized for the San Antonio gully from the entrance of Pamplona tunnel; and iii) outpouring industrial wastewater and infiltration waters generated at tunneling from the exit of Pamplona tunnel onto the national road.

<sup>35</sup> Decree No. 05752 of July 28, 2021 – "Ordering the launch of a penalization procedure".

water suppliers (CORPONOR and regulators from the municipality of Pamplona) has been supported; and vi) a suitable solution has been sought that guarantees water supply to the users in several towns in the FU1.

#### 4.3.b.i Wastes

The EMPs and the PAGA have specific programs to handle hazardous and non-hazardous solid waste throughout the management process (reduction, generation, storage, collection and transport, utilization, and disposal). The proposed measures include hiring companies with valid environmental permits and authorizations for waste collection, treatment, and disposal, in compliance with national regulations. So, for example, recyclable waste is taken by Mi Planeta, a company that reutilizes it; organic and domestic waste is sent for sanitary landfill; and hazardous waste is managed by VEOLIA, a company with the permits and authorizations to do so.

#### 4.3.b.ii Hazardous Materials Management

The hazardous materials identified in the Project's EMPs include, among others: i) fuel for vehicles and machinery, ii) oils, iii) grease, iv) paints and v) explosives. The plan includes measures to use, store, handle and dispose these materials, as well as special measures for the use of explosives (in the subprogram for explosive handling and blast execution within the underground work construction program).

Handling explosives involves the following: i) checking the use permit; ii) checking how they are stored; iii) identifying ignition sources in different sections for each material; iv) providing fireproof and bulletproof storage, with proper lighting and ventilation, as well as damping chambers to be located over 100 m away from buildings, railways, roads or other structures; v) forbidding keeping any other type of material (paints, wood, waste, solid waste, cardboard) where explosives are stored; vi) putting up signage at explosive stores within a radius of at least 10 m; and vii) constantly keeping the explosive stores free from weed, garbage, wood remains, paper and other materials.

No activities are carried out presently that involve the use of explosives. No incidents have been reported in connection with the use or handling of hazardous materials.

#### 4.3.b.iii Management and Use of Pesticides

The Project has a pesticide management environmental handbook that provides guidelines for comprehensive plague management; pesticides handling, use and acquisition; and identification of potential risks for the people, the facilities, and the environment.

The Project required the use fungicides and herbicides to control plagues only in some compensation areas. These chemicals are bought by the contractor with the Concessionaire's authorization after properly checking their composition, the relevant safety datasheets, the health and safety requirements for their handling, and that they are not classed as category Ia or Ib in the World Health Organization's list of pesticides.

#### 4.4 Community Health, Safety and Security

##### 4.4.a Community Health, Safety and Security

The Project is adequately equipped to manage the potential impacts on the communities nearby.

##### 4.4.a.i Infrastructure and Equipment Design and Safety

The Project has put up highly visible and well-located horizontal and vertical signs along the road, especially at pedestrian crossings. This is part of the pedestrian mobility management program, which mainly seeks to correct and mitigate the effects on people's mobility so that pedestrian access to both carriageways is safely guaranteed.

The Project has informed the communities of the existence of pedestrian crossings in 18 road safety campaigns and 392 awareness-raising sessions, articulated in three lines of action: i) school patrols; ii) road safety education project "Caminos Escolares Seguros"; and iii) the "Soy Caminante Seguro" program. These lines of action are supported by traffic authorities and aimed at strengthening the accident prevention system by raising awareness among users of all ages.

##### 4.4.a.ii Hazardous Materials Management and Safety

The hazardous materials for Project execution identified in the EMP include, among others, fuel for vehicles and machinery, oils, grease, paints, and explosives. The Project is not carrying out any blasting activities; therefore, there are no active explosive stores.

The small amounts of fuel used by equipment like power generators are provided by verified contractors. In areas where hazardous chemical products are handled, like the Pamplonita tunnel non-domestic wastewater treatment plant, there are safety datasheets, and containment and labeling systems in place based on the Globally Harmonized System<sup>36</sup>. All these places are far away from any infrastructure with social use to prevent damages in case of emergency.

##### 4.4.a.iii Ecosystem Services

The Project analyzed the ecosystem services and assessed its cumulative impact. The assessment, which involved interviews with the inhabitants of the FUs, the preparation of a social map, land reports and sociocultural interviews, helped classify the ecosystem services, their degree of reliance on the Project and the potential impacts on them. The process identified 35 ecosystem services, divided as follows; i) 14 are provisioning services (water supply, biomass, ornamental plants, sand, rock and other added minerals); ii) 14 are regulatory services; and iii) 7 are cultural services.

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<sup>36</sup> The Globally Harmonized System is a UN initiative to standardize the classification of chemicals worldwide. It aims at identifying the hazards in chemical products and inform about them.

#### 4.4.a.iv Community Exposure to Disease

The community exposure to disease because of Project activities is immaterial. Nevertheless, preventive measures were duly taken to contain the spread of COVID 19, especially at information sessions. Alternatives were used, such as video-calls through special platforms, and the use of other options such as WhatsApp groups was reinforced.

The Concessionaire acquired COVID tests, which were given to workers as a way to control the spread of the disease. Also, as soon as it was possible, it encouraged its workers to get vaccinated during the campaigns organized by the national government.

#### 4.4.a.v Emergency Preparedness and Response

The Project has been communicating the internal and external threats identified in the DRMPs and sharing with the public the results of the emergency drills carried out with the communities.

#### 4.4.b Security Personnel

WAS is the company the Project outsourced the security services from by virtue of two contracts: one for strategic security, i. e. the company performs tasks such as analysis of stretches and roads, camera activity checks, GPS monitoring and public order control; and another one that covers the physical security of the facilities with armed guards. The Concessionaire uses the HSEQ requirements checklist in the purchases and subcontracting procedure in concessions to check the proposed personnel is properly trained in the use of weapons, the proper and commensurate use of force and human rights.

The Project has not yet recorded any adverse situations or events between the community and the security company.

### 4.5 Land Acquisition and Involuntary Resettlement

#### 4.5.a General

As per the concession contract, the Concessionaire is authorized to work on the plots defined in the road corridor approved by the ANI.

The execution of the project requires the allocation of 458 properties, of which 371 have property availability<sup>37</sup> and 305 that have been acquired in favor of the ANI.<sup>38</sup> With this, the Project has achieved an effective eased length of 112.6 4 km of 112.7 km required (99.95%). Within the area required for the execution of the Project, the Concessionaire had identified 242 social units ("SU") that would be affected; 66% correspond to residential SU, 16% to productive SU and the remaining 18% to another type of US. By the end of 2022, more than 85% of the total SU had concluded its

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<sup>37</sup> Permission to intervene, while the instruments of transfer of ownership are perfected.

<sup>38</sup> The process of right of way easement began in 2018. The ESDD reviewed this process, including its residual impacts.

relocation or compensation process, following the guidelines contemplated in Resolution 545 of 2008<sup>39</sup> of the ANI.

Mining is an actively engaged economic activity in the region. According to the Colombian Environmental Information System (“SIAC”, for its acronym in Spanish), in the municipalities affected by the Project (mainly Pamplona and Pamplonita), several mining titles would have been granted to extract coal and construction materials, among other nonprecious minerals. Those titles that were valid when the Project was being planned, i. e. that were registered with the National Mining Registry and had a work program (“PTO”, for its acronym in Spanish), an environmental license and other legal authorizations in place<sup>40</sup>, would have been considered for the Project’s EIAs and cumulative impact analysis.

#### 4.5.a.i Project Design

The Project was designed following a criterion of “the least possible effect” in terms of number of plots, amount of residential or productive social units, and sensitive environmental resources (biotic and abiotic). This, plus a mixed geography, mainly made up of mountain ranges, moorland, plateaus, grassland, and hills, with different altitudinal zones, influenced the designs as well as the development of the expected works.

The Project design has been communicated in due course and was supported by the communities living in the area of influence. The issues associated with the plot acquisition process were widely discussed with the communities, which was properly documented.

#### 4.5.a.ii Compensation and Benefits for Displaced Persons

The Concessionaire has developed a database with detailed information about each one of the plots to be acquired, including the potential social and economic impacts, and the population vulnerability factors as variables to be considered for each plot.

The Concessionaire has a program to manage effects on third parties, which materializes in a compensation plan, in compliance with Resolution No. 545. This resolution demands a Resettlement Plan (“PAR”, for its acronym in Spanish) to be designed and applied for the properties in which residential and productive SU, are identified.

The Concessionaire is currently supporting the displaced SUs, by monitoring their psychological and social state as well as the recovery of their livelihoods and economic support. This process has been deployed in line with other assigned schedules.

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<sup>39</sup> Which defines that the social management instruments (Socio-economic Compensation Plan, Basic Social Plan Social Management Plan) applicable to infrastructure projects developed by the ANI; Resolution 077 of 2012, which establishes social management guidelines for the preparation and execution of involuntary population resettlement plans for social units that are irregular occupants of land required for concessioned infrastructure projects; and Resolution 1776 of 2015, which defines the social management instruments applicable to infrastructure projects.

<sup>40</sup> As established in the Code of Mining.

Only 40 out of the 458 required plots were forced to be released under expropriation<sup>41</sup> (mainly in FU4). It is worth mentioning that these expropriations are in progress and the Project has received the related transfer deed from the court. Despite that, no effects were identified on vulnerable families and no service providers have been detected whose activity may have been suspended because of the Project.

In the case of plots under restitution proceedings, there were five unused plots, which have already been requested from the ANI. Two plots were identified facing forfeiture, which have been formally handed over by Sociedad de Activos Especiales, the government agency in charge of dealing with this type of assets in Colombia.

It is important to highlight that, to determine the acquisition price of the real estate required by the Project, the commercial or replacement cost was used. As to improvers (*mejoratorios*), the Concessionaire has kept payments according to the Law<sup>42</sup>, as well as recording and monitoring their living conditions. These measures have helped to adjust the compensation process to what the social units consider enough and, in general terms, “within their expectations”.

#### 4.5.a.iii Community Engagement

The Concessionaire employs a team of professionals to monitor the relocation processes; such professionals visit all affected social units monthly and offer them psychosocial support. The relocated social units have participated in meetings in which the Concessionaire has informed them the payments form and schedule. This has been assisted with diagnostic datasheets that record the support given in each case and show the emotional and economic improvement curve of the relocated families.

#### 4.5.a.iv Grievance Mechanism

The general RGCSs reception system includes gathering and processing any claims related to population displacement through the email created to such end, the customer care branch office, directly through social relocation managers or by phone. All grievances and their processing data are included in the Project database.

There are currently no unresolved RGCSs involving families to be relocated or already relocated. Nonetheless, the Concessionaire will systematize the RGCSs coming especially from relocated social units and differently from those filed by other community members.

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

Even though the Concessionaire has a social and economic compensation plan aligned with what is indicated in Resolution No. 545, it also has instruments to characterize each SU, and actions to support and monitor each family's adaptation process.

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<sup>41</sup> Most of them relate to plots with undefined ownership or with succession problems (the owner was deceased).

<sup>42</sup> Up to 90,000,000 Colombian Pesos (“COP”).

However, the process does not link to its monitoring support any quantitative or qualitative indicators for the displaced SUs allowing ensuring that their adjustment to the new area has been successful, or the restoration of their productive capacity to previous or better conditions, as Colombian legislation only requires so when no title to the property is submitted or in plots that are illegally occupied. Moreover, it is important to consider that, since the Project is dynamic, the Concessionaire has had to acquire more areas for banks and slopes than what was originally expected.

The economic impacts addressed in the EMP were: i) the drop in sales (FU1, FU3, FU4); ii) money shortage due to the lack of revenue-generating activities (FU2); iii) lack of economic resources due to the lack of revenue-generating economic activities (FU5); and iv) insufficient sales (FU6). The Project has managed these impacts as part of the EMP, calculating and compensating for the resulting damages and loss of revenue, using record sheets. Nevertheless, apart from the support given by the Project, it is necessary to involve other public institutions<sup>43</sup> to train the physically or economically displaced SU and to develop initiatives of productive projects.

In this regard, the Concessionaire will: i) implement an institutional capacity support program with education and training activities for the productive projects initiatives aimed at the economically displaced productive social units; ii) prepare annexes to the forms required by the ANI to monitor the adaptation of each affected social unit, using quantitative and qualitative indicators of how the living conditions, the economic (productive means and livelihood) conditions and quality of life are being restored; iii) set up a mechanism with a list of quantitative compliance indicators to check whether the residential or productive social unit could restore their economic and life quality conditions; iv) link a list of support activities for each residential social unit subject to physical displacement, to the social support methodology; and v) develop and implement an action plan to acquire additional areas as required by the Project construction needs.

#### 4.5.b Displacement

##### 4.5.b.i Physical Displacement

Apart from the residential social units that will be affected by the Project, there are two infrastructures which, given their purpose, needed special attention: the school Centro Educativo Rural La Colonia (in Calaluna); and the community center and a football field in Tescua.

For the Centro Educativo Rural La Colonia, the Concessionaire entered a bill of sale for the place where the school is located now and has acquired the plot where it would be relocated. This has already been discussed with the communities using the school, as well as with the department education authority and the city of Bochalema. The only remaining step is to come to a final design of the facilities including the suggestions received in the communication sessions and start the construction.

As to the relocation of the community center and the football field in Tescua, the Concessionaire has made progress in discussing with the community and preparing the designs. In this regard, the

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<sup>43</sup> Among them: Innpulsa Colombia, SENA, Colciencias, Fondo Emprendedor, etc.

community center will be relocated to the remaining area of the plot where it is located now, whereas the football field will be built in a different plot, which has already been acquired. It may be finished and handed over to the community in the second half of 2023.

The construction of the road may have caused some minor damages (wall cracks) to houses near it. Therefore, the Concessionaire will develop and execute an action plan to repair them.

#### 4.5.b.ii Economic Displacement

It is understood that the economic activities that were somehow displaced by the road construction (small convenience stores and grocery stores) have been duly compensated in accordance with the relevant regulations and the obligations defined in the concession contract. These activities are part of the Project economic activities monitoring programs.

The Project identified that the road corridor took up several areas with mining licenses officially granted for the extraction of minerals, such as coal, sand, and construction materials. As part of its management strategy and to identify the potential impacts on those current and future operations, the holders of those licenses were consulted and engaged as part of the EIAs.

The local legislation, specifically Law No. 1682 of 2013 amended by Law No. 1742 of 2014<sup>44</sup>, regulates the compensation factors these areas are subject to and states that the State, via the entity responsible for the Project, must acquire the land. Apart from carrying out the compensations as per the abovementioned legislation and according to the obligations derived from the concession contract with the ANI, the Concessionaire will develop and enforce a list of actions to encourage the related authorities to find a solution for the holders of the mining exploitation contracts.

#### 4.5.c Private Sector Responsibilities Under Government-Managed Resettlement

By virtue of the relevant concession contract, plot acquisition is initially the responsibility of the Concessionaire, who must gather data and appraise the assets, submit offers, negotiate them, and acquire the necessary plots for the Project, previously verified by the Inspector and approved by the ANI.

The Inspector, a state-appointed company, reviews the inventory and appraisals carried out by the Concessionaire and requests changes or corrections, if needed. Only when approved by the Inspector, can the Concessionaire make an economic offer to the SU subject to physical or economical displacement.

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<sup>44</sup> Law whereby measures and provisions for transport infrastructure projects are adopted, and extraordinary powers are granted.

## 4.6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

### 4.6.a General

The Project has implemented a biodiversity loss compensation plan (“BCP”), two biota compensation plans and some additional environmental compensations for the use of natural resources. The BCP includes compensations depending on the characteristics of the area affected by the Project (types of habitats and ecosystems), as well as actions to compensate for the impacts identified and monitoring measures. Moreover, the EMP approved in the environmental licenses presents technical datasheets with specifications to avoid or manage the impacts on the biodiversity and the ecosystem services; some of them are: i) managing the soil surface layer; ii) protecting wildlife, flora, and sensitive ecosystems; and iii) managing revegetation in the intervened areas.

Considering that the environmental licenses were issued in 2018 when the Project final designs were still unavailable and that they were amended in 2020 and 2021, the number of hectares to be compensated has changed. So, the Project must compensate for 1.014 hectares (“ha”) with ecological rehabilitation, through the figure of ecological rehabilitation and payments for environmental services, guaranteeing a follow-up of the rehabilitated and conserved areas for a minimum of five years after they have been planted.

The abovementioned compensation plans, which seek to avoid a net loss of biodiversity, are being implemented. So, to date, of a total of 70,88 ha to be compensated for FU1, maintenance and monitoring activities have begun on 40,09 ha on the Arenal property, 3,30 ha on the La Unión property, 7,58 ha in the Colonia property and 16,60 ha in the Hueco property. The compensation plan for FU2 got the approval resolution on October 10, 2022, so the implementation has not started yet. For FU3-4-5, of the approximately 890 ha required to comply with the compensation obligation before the Environmental Authority, tree planting activities and the isolation of the San Bernardo properties have been carried out, with 20,62 ha; Coteruco, with 30,20 ha; and Nueva California with 19,02 ha.

Two experts in biology and forestry are employed by the Project for monitoring the execution of the BCP. These experts are currently working on characterizing and drafting conservation agreements<sup>45</sup> with the owners of the chosen plots for further development of compensation activities.

### 4.6.b Protection and Conservation of Biodiversity

#### 4.6.b.i Modified Habitat

A total of 172 ecosystems are found in the Project area of influence, 135 of which relate to modified ecosystems.

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<sup>45</sup> These agreements, which are framed within the activities of payment for environmental services, provide that the Project, for the duration of the compensation (minimum five years), pay the owner an economic incentive to recognize actions and practices associated with conservation and rehabilitation of ecosystems, and that allow minimizing conflicts in land use and favoring the maintenance and generation of environmental services where compensations are established.

#### 4.6.b.ii Natural Habitat

A total 172 ecosystems were identified in the Project area of influence, 32 of which relate to natural ecosystems while five were aquatic (1.18%).

The Project's FU1 and FU2 cross small areas of natural ecosystems with mainly short and high dense shrubs, dense grasslands and, in smaller amounts, riparian or gallery forests. The largest number of intervened hectares is reported to be in transformed ecosystems associated with pasture mosaic, wooded grassland, and weeded grass.

FU3, FU4 and FU5 lie on natural ecosystems in tropical dry forest areas and fragmented riparian or gallery forests that alternate with transformed ecosystems, mainly with coffee plantations, pasture and crop-field mosaic, and wooded grassland, and weeded grass.

#### 4.6.b.iii Critical Habitat

The EIAs and the PAGA found some endemic and endangered fauna and flora species. However, the results of the assessment made by the Concessionaire to determine whether there were threatened species ("endangered" or "critically endangered") or restrictedly distributed species<sup>46</sup>, conclude that no critical habitats may be impacted by the Project's expected activities.

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

The Project runs across neither legally protected or internationally recognized areas nor strategic, sensitive, or protected ecosystems, except for some sections of FU3, FU4 and FU5 that intercept some tropical dry forest areas<sup>47</sup>, which, despite being legally protected, are not considered sensitive. For this reason, the Concessionaire, in preparation to obtain the environmental license, redesigned the road layout to diminish the effects on these areas and added a 1-to-10, that is, for each hectare of natural ecosystem impacted by the project, an environmental compensation of 10 ha is established. This plan, already approved by the environmental authorities, is under implementation.

#### 4.6.b.v Invasive Alien Species

The Project does not leverage invasive alien species.

#### 4.6.c Management of Ecosystem Services

The Project analyzed ecosystem services. The assessment, which involved interviews with the population, the creation of a social map, the preparation of land reports and sociocultural interviews, helped classify the ecosystem services, their degree of reliance on the Project and the

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<sup>46</sup> With a limited presence area of less than 50,000 km<sup>2</sup>.

<sup>47</sup> The tropical dry forest is considered a sensitive ecosystem characterized by fauna and flora species with different degrees of adaptation to their environment, contributes a wide range of provisioning and ecosystem services and is one of the most degraded and fragmented ecosystems in Colombia.

potential impacts on them. It found that the most important ecosystem service for the communities is the supply of water, biomass, ornamental plants, sand, rocks and other added minerals<sup>48</sup>.

In 2020, when tunneling in FU1, an increase in infiltration waters overflowed the groundwater levels and affected the water supply service to the communities in nine places. A final solution is yet to be found; in the meantime, the Project is supplying water to the affected population with tankers. Also, it is working to reach an agreement with the water company in Pamplona ("EMPOPAMPLONA", for its acronym in Spanish) to connect these areas to the water system to stop delivering water in tankers.

In order to restore the water supply ecosystem service, the Project is implementing measures, such as: i) planting trees in key points of the basin; ii) building micro-damns (drilling in the mountain) to capture rainwater and help phreatic and vegetation recovery; iii) protecting the water connections with enclosures and protection barriers; iv) enclosing the water bodies near the hydraulic structures to avoid incoming materials; v) continuously monitoring waterfall volumes; vi) monitoring the phreatic levels; and vii) organizing training sessions on ecosystem service preservation for the communities from the Project area of influence. Nonetheless, the Concessionaire will prepare a consolidated report on the already executed and still pending actions to address impacts on the ecosystem services.

#### 4.6.d Sustainable Management of Living Natural Resources

The Concessionaire has done its best to refrain from generating adverse impacts on the biodiversity and the ecosystem services, including actions like: i) realigning the road layout to avoid interventions on sulfur springs in FU4, considered cultural services of touristic and recreational interest; ii) analyzing the ecosystem services in detail with the participation of the communities in the area of influence; iii) utilizing less forest area than what was authorized in the permits; iv) designing animal crossings that include mixed (oversized gutter in FU1), raised (FU3, FU4 and FU5) and exclusive passages; and v) implementing a rescue and relocation program for sensitive flora and fauna, which has helped rescue and relocate 1,169 animals so far, including mammals, reptiles and amphibians, and 10,573 plant species (mainly orchids and bromeliads).

#### 4.6.e Supply Chain

The Project has in place a purchases and subcontracting procedure, with assessment mechanisms for before, during and after the acquisition of goods and services, which help to know whether the goods and services to be purchased have been sourced or produced with practices that have avoided the conversion of critical or natural habitats or created any other substantial effect on sensitive ecosystems.

### 4.7 Indigenous Peoples

The Project will not affect indigenous, black, African-Colombian, *raizal* and *palenquera* communities.

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<sup>48</sup> Ecosystem Service Report, UVRP, September 2020.

## 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 is implementing a plan for archeological and heritage management that is in line with the requirements of the Colombian Institute of Anthropology and History (“ICANH”, for its acronym in Spanish). A chance find procedure was adopted, which requires the following, in case of a chance find: i) stop the specific activities leading to the find; ii) do not excavate or intervene the site before receiving instructions and support from the ICANH; iii) protect the area to avoid the access of people that may negatively affect the assets found and their environment; iv) call the police, when needed, for support to protect the reported assets; v) do not remove the found archeological assets; vi) provisionally cover the elements (with geotextiles or similar materials, to minimize the impact of the environment) to protect them from the weather; vii) do not step on, manipulate or remove the artifacts found; and viii) in case the assets are rock paintings, do not clean, paint or re-mark the pictograms or petroglyphs.

Lithic and ceramic pieces have been reported found and are still being classified.

#### 4.8.a.ii Consultation

The Concessionaire has kept proper communication with the ICANH, an entity that regularly visits the Project areas.

#### 4.8.a.iii Community Access

The ICANH will decide whether the community can access the elements found once they have been classified.

#### 4.8.a.iv Removal of Replicable and Nonreplicable Cultural Heritage

Only the ICANH or any officials they choose may remove replicable or nonreplicable cultural heritage in compliance with Colombian legislation. Consequently, it is the Concessionaire’s responsibility to look after the found archeological pieces until the ICANH informs what to do with them.

#### 4.8.a.v Critical Cultural Heritage

No effects on critical cultural heritage caused by the Project have been yet reported. It is highly improbable that this will happen while works are under execution.

### 4.8.b Project’s Use of Cultural Heritage

The Concessionaire is not expected to use any cultural heritage item.

**5. Local Access of Project Documentation**

The information related to the Project is available at: <https://www.unionvialriopamplonita.com/>