

ESRS Chimbote Bypass Project

Original language of the document: Spanish

A. Investment Summary

Publication date:	April 23, 2019
Project name:	Chimbote Bypass (Road Network 4)
Project number:	12205.01
Investment type:	Investment loan
Environmental/Social category:	B
Planned date for approval by the Board of Directors:	May 28, 2019
Company:	Sociedad Concesionaria Autopista del Norte SCA
Sponsoring entity:	Aleatica
Sector:	Transportation Infrastructure
Amount of funding requested:	Up to US\$175,000,000
Project location:	Peru
Project officer:	Aldo Malpartida
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Project Scope and Objectives:

Road Network No.4 (hereinafter "the RV4") is one of the most important roads in Peru, connecting its capital, Lima, with several important cities and ports in the northern part of the country. In 2009, OHL Concesiones, now Aleatica, was awarded the concession for the road, which includes; i) the operation and maintenance of 356 km of existing road; and ii) the construction of a 283-kilometer second lane. Subsequently, by means of Addendum 2 to the Concession Agreement in 2016, it was also entrusted with the construction of a 37-kilometer long Chimbote bypass. To fulfill the objectives of the concession, Aleatica has created two companies: i) Autopista del Norte (hereinafter "AUNOR"), which is responsible for managing the construction works and serves as the concessionaire of the RV4; and ii) Operadora de Carreteras (hereinafter "OPECAR"), which is responsible for the operation and maintenance of the concession.

IDB Invest's participation (hereinafter "the Project") will focus on providing resources for the construction of: i) the works required to complete the RV4 (Pativilca-Santa-Trujillo and Puerto Salaverry segments); and ii) the Chimbote bypass.

B. Environmental and Social Review Sheet

SUMMARY OF THE ENVIRONMENTAL AND SOCIAL REVIEW

1. Scope of the Environmental and Social Review

IDB Invest performed its Environmental and Social Due Diligence (ESDD) visit to the Project on March 26-28, 2019. During this visit, it held meetings in Huarney and Chimbote with representatives of AUNOR, OPECAR, the Ministry of Transport and Communications (hereinafter "the MTC"), the Acquisition, Compensation, and Involuntary Resettlement Program¹ (hereinafter "PACRI", for its acronym in Spanish PACRI), and with the local authorities of Nuevo Chimbote district and del Santa Province. In addition, a land tour of the entire RV4 was completed, and the layout of the future Chimbote bypass, currently in the process of land release by the PACRI, was visited.

At the time of the visit, the Project presented the following situation: i) 97% progress in the twinning of the RV4 lane; and ii) in the Chimbote bypass, 21% of the land required had been acquired, 57% was in the process of being paid and 23% was in the process of being valued.

1.1. Environmental and Social Categorization and Rationale

In accordance with IDB Invest's Environmental and Social Sustainability Policy, the Project has been classified as a Category "B" due to most of the environmental impacts identified, save for the following, are considered of medium importance: i) a decrease in plant cover and terrestrial habitat disturbance due to the construction activities; ii) noise and vibrations, especially during the execution phase of the works; iii) the generation of areas susceptible to rain and water erosion processes; and iv) the possible increase in traffic accidents due to increased truck and machinery traffic, both during the construction and during the operation phase. All these impacts can be managed through standard procedures and by adopting best construction and operating practices.

The RV4 has been environmentally and socially monitored by an independent consultant since 2010, using the performance standards of the International Finance Corporation (hereinafter "the IFC") as a foundation.

2. Environmental and Social Context

The Project's area of influence is located in the north and central area of the Peruvian coast, in the Pacific Desert (Brack, A. 1986), with altitudes varying between sea level and 500 meters above sea level (masl). According to the Climate Classification map of the National Meteorology and Hydrology Service (SENAMHI, for its acronym in Spanish) (2002), the climate classification corresponds to arid, semi-arid and humid, with little rain that usually manifests as a drizzle. The valleys comprise lands with scant vegetation and agricultural lands.

The Project, which is part of the Pan-American Highway that connects the districts of Lima, Ancash and La Libertad, constitutes an important communication backbone in the region.

The Project's area of influence is characterized by the presence of population centers developed along the current North Pan-American Highway, agricultural areas with small-scale farms (with and without land titles) and large agribusiness companies, especially in the northern area where the RV4 works were executed.

¹ Part of the Ministry of Transport and Communications.

The road's layout has four landscape types: desert, agricultural, riverside, and the Guadalupito wetland. The life zones crossed by the Project, according to Holdridge, are the following: Subtropical Arid Desert, Subtropical Perarid Lower Montane Desert, Tropical Superarid Premontane Desert, and Subtropical Lower Montane Desert Scrub.

The dominant desert plant growth in the area is weeds (85%) and shrubs (10%). The wildlife identified in the area mainly includes reptiles that live in shrublands, such as the genus *Dicrodon*, which is widely distributed in the Peruvian coast. However, among other species that inhabit the area is the Holmberg's Desert Tegu (*Dicrodon holmbergi*), whose conservation status under Peruvian legislation is endangered, and the Ecuador Desert Tegu (*Dicrodon heterolepis*), whose conservation status is vulnerable. The Project area does not cross any protected natural areas; the closest (Callipuy National Sanctuary) is 80 km away.

3. Environmental risks and impacts, and proposed mitigation and compensation measures

3.1. Assessment and Management of Environmental and Social Risks and Impacts

a. Environmental and social assessment and management system

The Project has a Integrated Management System (IMS) that includes environmental and social management, which was developed in line with the international standards ISO 14001: 2004, OHSAS 18001: 2007 and ISO 9001:2008. The IMS has been monitored since the start of RV4 construction and has numerous procedures and plans that apply to the Project's construction and operation phases, also addressing the environmental and social management plans identified in its Environmental Impact Assessment² (hereinafter "the EIA") and its supplementary instruments.

Because the construction of the Chimbote bypass has yet to be awarded, this part of the Project does not have a specific Environmental and Social Management System (hereinafter "ESMS") with environmental and social indicators to adjust its management and update its procedures.

b. Policies

AUNOR has an Environmental and Social Policy that has been included as part of the Environmental Management Strategy submitted in its Updated EIA (2017). Likewise, the OHL Group's corporate standards provided the framework of policies and plans that address important issues, the most relevant being i) the "Equality Plan"; ii) the "Declaration on Prevention of Occupational Risks, Environment and Quality"; iii) the "Social Action Framework Plan"; iv) the "Corporate Social Responsibility Policy"; v) the "Sustainability Policy"; vi) the "Human Resources Regulatory Principles"; and vii) the "United Nations Global Compact Principles". The Project also has the so-called "OHL Group Good Neighbor Code" (latest revision, 2012), the "2015 Code of Ethics" and the "Protocol for Prevention and Action in Cases of Harassment". However, the policies and corporate plans of the OHL Group need to be ratified by AUNOR, given that, strictly speaking, the latter is no longer part of the OHL Group but of Aleatica.

c. Identification of Risks and Impacts

i. Direct and indirect risks and impacts

Most of the environmental impacts identified for the Project are not significant, with the exception of three significant ones that will surface during the construction phase: a decrease in plant cover and terrestrial habitat disturbance, disturbance of the environment due to an increase in noise and vibrations, and the generation of areas likely to be affected by rain and water erosion processes. The Environmental Management Plan contained in the updated EIA includes relevant mitigation measures that are proportional to the identified impacts. However, the updated EIA is still awaiting the approval of the National Environmental Certification Service (hereinafter "the SENACE", for its acronym in Spanish).

² Approved through Board Resolution No. 034-2010-MTC/16, dated March 15, 2010.

The impacts on the Project's neighboring communities mainly relate to: i) possible traffic accidents due to increased truck and machinery traffic transporting equipment and materials, as well as increased traffic in commissioned sectors; ii) the generation of noise and dust due to the movement of machinery and materials, and iii) blasting in the quarries. The construction of the Chimbote bypass is not expected to significantly increase these impacts.

ii. Alternatives analysis

The Chimbote Bypass layout submitted in the Updated EIA was approved by the MTC after evaluating revised layout alternatives with the PACRI and the General Directorate of Transport Concessions (hereinafter "the DGCT", for its acronym in Spanish). The selected alternative considers avoiding impacts in areas with archaeological remains and includes two additional kilometers in order to avoid the Campo Nuevo Alto town. It was demonstrated on-site that the selected alternative for the bypass avoids affecting existing social and road infrastructure, towns, archaeological areas, and the town's basic services.

d. Management Programs

The EIA contains a set of plans, programs and actions that aim to prevent, control and mitigate the adverse effects foreseen for the construction and operation phases of the Project. It also contains the environmental monitoring points that have been adapted to the existing ones to include the Chimbote bypass.

The updated EIA includes the following management programs: i) Preventive, Mitigating and Corrective Measures, which includes the following subprograms: Effluent, Solid, and Liquid Waste Management; Protection of Living Natural Resources; Local Health; Erosion Control and Geomorphology; and Road Safety and Signaling; ii) Environmental Monitoring and Follow-Up, comprising the subprograms on Air Quality monitoring; Water Quality; Soil Quality; Ambient Noise; Flora and Fauna; and Geomorphology and Erosion Control; iii) Education and Training, which includes the Environmental Education and Environmental Training subprograms; iv) Social Affairs, which includes subprograms on Community Relations; Local Workforce Contracting; Citizen Participation; Local Debts; Procurement of Goods and Services; and Grievances and Claims; v) Contingencies, comprising subprograms on Occupational Health; Occupational Risk Prevention and Control; Contingencies; Prevention and Contingencies in the event of the El Niño Phenomenon; and vi) Closure, which includes subprograms on Removal and Clean-up Services; Restoration of Affected Areas; and Post-Closure Monitoring.

e. Organizational Capacity and Competence

The Project's Health, Safety, Environment, and Communities (HSEC) monitoring, under AUNOR, is performed by a company called URCI, which has a social and environmental specialist who oversees environmental, social, land release, health and safety, and archaeological aspects. Once the construction phase is restarted, there are plans to increase the number of URCI workers. In addition, OHL Construcción (in the works for which it has been contracted) and OPECAR have their own HSEC teams to implement the plans and programs that correspond to their role in the Project. Likewise, the EPC in charge of the construction of the Chimbote bypass is also expected to have its own HSEC team. The Project Technical Manager at AUNOR is responsible for managing the environmental, social, and health and safety issues of the Project; he reports directly to the General Manager.

f. Emergency Preparedness and Response

OHL Construcción has an Emergency Response Plan (hereinafter "the ERP") that identifies the different types of emergencies associated with the RV4 phase activities, defines roles and responsibilities in order to manage them, and includes procedures for identifying high-risk areas, as well as the preventive measures

and procedures associated with each type of emergency. The ERP lists the available resources and the location of medical facilities and emergency response services in the Project area.

The updated EIA contains a Subprogram focused on the Prevention and Contingency for the El Niño Phenomenon that defines the procedures to be followed in the event of emergencies that may arise as a result of this phenomenon.

g. Monitoring and Evaluation

During the development of the RV4 phase, AUNOR has produced and submitted the so-called Monthly Socio-Environmental - Archaeological - Occupational Health and Safety Reports to the Supervisory Board for Investment in Public Transport Infrastructure (hereinafter “the OSITRAN”, for its acronym in Spanish). These reports contain indicators and statistics that comply with the legal and regulatory requirements of the sector.

As part of the Project's monitoring and assessment activities, AUNOR will periodically prepare reports and conduct internal audits and inspections, investigate environmental incidents, and produce reports on health, safety, and the environment, in addition to the activities foreseen in the Project's Environmental Monitoring and Follow-Up Program for physical, chemical, and biological components.

h. Participation of Social Actors

The Chimbote bypass project, due to its importance and the fact that it has been expected for several decades, has received considerable media attention and political and social support.

Currently, the Project's stakeholder participation, consultation and information dissemination activities, although focused primarily on those directly affected by the land acquisition and resettlement process, also include groups from the communities located in the vicinity of construction areas, local and national authorities, the media, and road users.

i. Analysis and participation planning of social actors (ongoing)

AUNOR has continuously mapped and analyzed the Project's stakeholders, incorporating changes in authorities, relevant institutions, and new civil organizations associated with the Project. However, it has yet to develop a plan to ensure the participation of these key players.

ii. Dissemination of information

Since the start of construction of the RV4 phase, AUNOR has engaged in a continuous and comprehensive effort to disseminate information to stakeholders, including holding meetings with local authorities to address public concerns, report on the status and progress of the Project, and communicate possible impacts on local connectivity due to the construction works. Likewise, through the PACRI's offices, the community's concerns regarding the land release process have been addressed.

AUNOR continuously monitors the media in order to identify key issues of interest, the stakeholders involved, their position, and the news coverage (local, regional). This information helps to adjust the communication strategy for the different stakeholders groups.

iii. Consultation

Since the start of construction of the RV4 phase, AUNOR has engaged in a continuous and comprehensive effort regarding stakeholder participation, consultation, and information dissemination, and has submitted a favorable opinion by the stakeholders, with no significant opposition.

The Citizen Participation Subprogram is aligned with the works being done on the road. AUNOR also has a Communications and Social Responsibility Plan to guide the dissemination of information and citizen participation.

iv. Responsibilities of the private sector as part of a government-led stakeholder participation process

AUNOR actively participates in land release processes (conducted by and under the responsibility of the national government). Thus, it has facilitated dialog processes, provided the necessary technical support, and contributed to logistical and administrative aspects.

i. External communications and grievance mechanism

i. External Communication

AUNOR has a communications team (advised by a communications company) that follows up on news related to the Project.

ii. Grievance response mechanism for the affected communities

AUNOR has implemented a mechanism to manage and communicate external grievances through the so-called Complaints and Suggestions Book, available in electronic format (web page) and physical format (OPECAR's administrative offices at each toll station). Likewise, the PACRI keeps a book to record consultations, inquiries and complaints at its field offices. Reception records are kept and the replies given are effectively monitored.

j. Periodic reports to the affected communities:

AUNOR holds regular meetings with the local authorities to inform them of the status of the Project. The local authorities have a direct line of communication with the PACRI and with the Project's social supervisor (URCI).

3.2. Labor and working conditions

a. Working Conditions and Management of Labor Relations

The analysis based on the current and historical management of the RV4 works (OHL Construcción) and operation (OPECAR) is presented, clarifying that the Chimbote bypass stage has yet to choose any EPC(s); however, the standards required by AUNOR of OHL Construcción and OPECAR are expected to also be required of the new EPC companies for the Chimbote bypass.

i. Human Resources Policies and Procedures

The Occupational Health and Safety Management System of the RV4 phase contains: i) policy and objectives regarding occupational health and safety; ii) an internal occupational health and safety regulation; iii) the identification and assessment of risks and hazards, as well as their control measures; iv) a risk map; v) preventive activity planning; and vi) an annual occupational health and safety program. OHL Construcción has a Code of Conduct.

ii. Employment Terms and Labor Conditions

It is estimated that the construction of the Chimbote bypass will require hiring around 220 people: 100 unskilled workers and 120 skilled workers. Historically, AUNOR has provided good working conditions to its personnel, providing them with suitable benefits and wages, personal protective equipment (PPE), suitable conditions at the working fronts (including water, tents for resting and eating), portable toilets, and regular inspections of workers' facilities, including accommodation and restaurants.

iii. Trade unions

OHL Construcción maintains a list of unions relevant to the sector and has developed strategic relationships with them to provide timely and continuous information on job opportunities, thus avoiding false expectations. It was noted that OHL Construcción has an established process for electing workers' representatives to the Occupational Health and Safety Committee (OHSC), which has held sessions during the site reactivations.

iv. Non-discrimination and equal opportunities

OHL Construcción maintains a guide for the protection of pregnant and breastfeeding workers, which proposes adapting the position to the new mother; it performs a workplace risk analysis given her new condition and promotes changes based on the function performed by the mother. It also has a register of workers differentiated by gender, and OPECAR has envisaged increasing women's participation in its operations.

v. Workforce reduction

OHL Construcción has employee termination processes that meet all legal requirements.

vi. Grievance Mechanism

The Project has a workers' grievance mechanism implemented through posters, suggestion boxes and outreach procedures with information on how to file a complaint and the obligations of AUNOR and OHL Construcción to receive and respond to grievances. However, this mechanism does not provide the option for grievances to be submitted anonymously.

b. Workforce Protection

AUNOR and OHL Construcción comply with Peru's labor legislation, the General Labor Act - Supreme Decree No. 224, which prohibits forced labor, child labor, and the hiring of individuals younger than 18 for hazardous work, which includes construction, among others relevant to this Project.

c. Occupational Health, Safety, and Security

OHL Construcción has an Occupational Health and Safety Management System aligned with the OHSAS 18001: 2007 standard and consistent with the guidelines and commitments stated in its Safety and Health, Quality, and Environment Policy. The system includes the obligation to report and investigate occupational accidents, diseases, and incidents; as well as to monitor the health and safety statistics both for OHL Construcción's employees and for its contractors and subcontractors. These requirements are summarized in the monthly report that is submitted to the OSITRAN.

d. Third-party workers

The hiring of third-party workers complies with the requirements of PS 2.

e. Supply Chain

The RV4 phase of the Project has accommodation and food service providers for workers, most of which are local companies in the Project area. AUNOR also has local medical services providers for admissions and retirement checkups, bookstores, heavy equipment rentals, and water and fuel tankers. According to its Procurement and Local Suppliers Program, local companies can be part of the Program as long as they comply with all legal requirements.

3.3. Resource Efficiency and Pollution Prevention

According to the independent consultant, the Project does not exceed the reportable limit of an equivalent of 100,000 tons of CO₂ per year.

During the construction phase, the RV4 phase uses water to irrigate roads and construction areas, for production in the aggregate plants, and for the operation of the worker camps' sanitation services system. OHL Construcción extracts water from wells or surface sources previously authorized by the National Water Authority (ANA, for its acronym in Spanish). Drinking water for workers is transported to the work areas in 20-liter boxes.

An Environmental Brigade is responsible for monitoring the proper management of solid waste and general housekeeping. The solid waste generated includes industrial (metal and cardboard) and hazardous (used oil,

among others) waste. There is a risk of accidental fuel or oil spills. The mitigation measures are found in the IMS Waste Management Plan

Domestic effluents are mainly generated in worker camps, construction fronts, and tolls. The Las Zorras and Coscomba worker camps have duly authorized self-cleaning biodigesters. The construction fronts use chemical toilets, which are regularly cleaned and maintained by authorized companies. The domestic effluents generated in the tolls are managed by OPECAR through portable septic tanks and percolation.

AUNOR reports the generation of solid and hazardous waste to the OSITRAN, including a copy of the certificates of final disposal, on a monthly basis.

3.4. Community Health, Safety, and Security

AUNOR heads and executes road safety education campaigns that respond to each community's concerns throughout the Project's area of influence. It also monitors the number of road accidents and runs medical campaigns aimed at the drivers who use the road. In addition, as part of the measures to improve road safety in populated centers, it has installed signage and made auxiliary lanes, sidewalks, accesses, and speed bumps available in urban areas.

OHL Construcción's Emergency Response Plan implemented so far in the RV4 contains procedures for handling—in coordination with the competent authorities—any product that could be considered hazardous or that could threaten the health of the population. This Plan considers the necessary response actions in the event of technical emergencies resulting in radiological, chemical, or biological contamination, as well as natural, social (terrorism, vandalism, riots, assaults, sabotage, and robbery), and occupational emergencies. It is expected that the EPC(s) in charge of the construction of the Chimbote bypass will align to the contents of this Plan.

Since the Project will primarily use local workers, an increase in community exposure to diseases is not anticipated.

Drills (earthquake, road emergency, tsunami, etc.) are regularly held at the work fronts, in coordination with OPECAR, and the results obtained are analyzed.

Security personnel is contracted and provided by a duly authorized security services company. It was observed that security personnel in the tollbooths are armed and have been trained and authorized to carry firearms.

3.5. Land Acquisition and Involuntary Resettlement

The design of the Chimbote bypass has endeavored to avoid passing through populated areas and affecting public service infrastructure in the small town of Guadalupito.

The concession agreement sets forth the MTC's obligation to deliver to AUNOR the fully released areas required for the construction of the Project. For this purpose, the Peruvian State has a legal framework that allows the PACRI to operate properly, so that land is properly valued, landowners and landholders are recognized, lost profits are considered, and additional benefits are provided to the affected parties. In the Guadalupito area, some opposition from the population to the release of the right of way was identified, because, in their opinion, the valuation of the land was not performed adequately. However, the PACRI confirmed that new valuations had been made, and the number of non-conformities had fallen considerably.

The land release work in the RV4 bypasses (Huarmey, Casma and Virú) and Chimbote bypass affects a total of 674 properties (private and public), 98 of which correspond to the Huarmey bypass (91% released), 123 to the Casma bypass (92% released), 141 to the Virú bypass (22% released) and 312 to the Chimbote bypass (21% released).

The negotiation, compensation, indemnification, expropriation, relocation, consultation, and grievance response aspects are handled directly by the PACRI and are its sole responsibility. However, AUNOR proactively participates in this process through meetings with the technical team in charge in the field and in Lima, in an effort to facilitate and streamline its management.

The Land Release Process headed by the MTC has implemented a formal grievance mechanism, which includes report books at the PACRI's field offices to record and address grievances and claims related to the Project's land release process. During the field visit, the functionality of the mechanism was verified and it was determined that the affected parties know where and whom to approach in order to resolve their concerns.

The manuals and procedures for the management of the resettlement process designed by the PACRI, with the support of AUNOR, are aligned with PS 5.

To date, the main concerns of the affected population and the authorities are the constant changes in the execution schedule of the works, which affects the credibility of the process.

The RV4 involves the resettlement of the La Victoria settlement located on the Huarmey bypass. This will be the Project's only resettlement. There are 175 families in La Victoria that are affected and recognized by the resettlement process led by the PACRI (equivalent to 5% of the population of La Victoria and 2.7 km of the Huarmey bypass).

The 175 families who will be physically displaced by the Project and that have been recognized by the PACRI will be resettled in Nueva Victoria, located close by the Huarmey bypass. The land in question is already registered in Public Registries and, in October 2017, AUNOR and the PACRI delivered the urban development file of Nueva Victoria to the Mayor of Huarmey.

Valuations of the land release process include lost profits, improvements, and easements, at market prices. However, the PACRI has not identified cases of economic displacement, as the effects have largely been limited to the right-of-way strip.

It has been agreed that temporary accesses (Miramar area on the RV4) will be kept for shops on the road whose previous accesses have been impaired by the roadworks, until the final ones are built.

There is, however, a lack of continuity in the State's post-compensation monitoring program, which, until August 2018, was partially attended by the community relations officers of the company commissioned by the MTC.

Since 2011, AUNOR has proactively supported the PACRI process through its on-site environmental and social team. At present, the mechanisms implemented by the PACRI are aligned with PS 5 for the stage they are in.

AUNOR organizes weekly coordination meetings with the MTC in Lima, which frequently include representatives of the PACRI, in order to monitor the progress of the Project and the land release process.

3.6. Biodiversity Conservation and Management of Natural Resources

The construction of the RV4 phase is almost complete and, according to the monitoring conducted, the activities have not affected the Guadalupito wetland or required a significant clearing of dry forest cover.

The Updated EIA includes an Environmental Management Strategy for the Project (phases RV4 and Chimbote) that considers environmental measures for the conservation of flora and fauna, of species whose conservation status is classified as “threatened”, and an environmental monitoring and follow-up program. Additionally, OHL Construcción has a Procedure for the Conservation of Reptile Species Classified as “Threatened”.

According to the EIA, no endangered (EN) or critically endangered (CR) species have been identified within the Project’s area of influence. There are also no protected areas or internationally recognized areas of high biodiversity value (i.e. Important Bird Areas, Ramsar sites).

AUNOR has monitored biodiversity in sensitive and natural habitats. The EIA includes measures to conserve flora and fauna (such as providing training to construction workers and adequately signaling wildlife crossings) and an Action Plan for the Conservation of Threatened Species, designed specifically for the Holmberg's Desert Tegu (*Dicrodon holmbergi*) and the Ecuador Desert Tegu (*Dicrodon heterolepis*). However, the plan needs to include additional species with a conservation status of “Threatened” and incorporate the measures required for their conservation, so as to avoid negative impacts on them.

The main raw materials used in the Project are sourced from quarries and water sources with valid permits. The EIA has not identified any impacts on biodiversity or on sensitive habitats arising from the Project’s supply chain.

3.7. Indigenous Peoples

The project will not affect any indigenous communities or population.

3.8. Cultural Heritage

The EIA has a Cultural and Archaeological Resources Management and Protection Program that includes the people responsible for its execution and implementation, as well as the management protocol and mitigation measures in the event of chance finds, and induction presentations to staff. This plan is aligned with the requirements of PS 8.

The Chimbote bypass has its respective Certificate of Absence of Archaeological Remains (CIRA for its acronym in Spanish), which identifies six areas of archaeological interest adjacent to the layout, but at a distance of between 50 and 100 m from the side of the road.

AUNOR has performed archaeological recoveries and has written three publications on the subject that have been made available to the local, regional and national community. The competent authorities have recognized this effort. AUNOR has also arranged local exhibitions about the executed works, providing local populations with access to information and knowledge of this cultural heritage. The recovered pieces have been given to local museums for their conservation, management and public exhibition.

The Peruvian cultural-archaeological regulation has a series of steps and permits defined by the Ministry of Culture (MINCU, for its acronym in Spanish) that regulate interventions prior to the start of works, as well as during the construction phase. AUNOR has fulfilled all of them.

The Project is mainly located in a rural area. According to prior research, the probabilities of identifying historic buildings or spaces for cultural use are low.

4. Local Access to Project Documentation

Information on this Project can be accessed through the following electronic links:

- <https://www.ositran.gob.pe/carreteras/red-vial-n-4-tramo-vial-pativilca-santa-trujillo-y-puerto-salaverry/>
- <https://www.aunor.pe/>

5. Environmental and Social Action Plan

No.	Aspect	Action	Product	Due date
PS 1: Assessment and Management of Environmental and Social Risks and Impacts				
1.1	Environmental and Social Management Plan	Adapt the ESMS so that it adequately covers the Project, especially the new scope of Chimbote and the requirements of the Updated EIA: Social Affairs Program and the Environmental Management Strategy. The ESMS shall complement existing policies, plans and procedures with those specific to the risks and impacts of the construction of the Chimbote Bypass, including their compliance indicators. Include the Project organizational chart for the construction stage (including contractors), describing the roles and responsibilities for both the RV4 and Chimbote stages.	<ol style="list-style-type: none"> Updated ESMS, including the plans, procedures and organizational chart for the RV4 stage. Updated ESMS, including the plans, procedures and organizational chart for the Chimbote stage. Evidence of the implementation of the Project management system. Documented processes for reviewing policies, programs, and plans. 	<ol style="list-style-type: none"> Prior to restarting construction of the RV4 stage. Prior to starting construction of the Chimbote Bypass (or the corresponding section). Regularly during the environmental and social monitoring following the financial closing. Prior to restarting construction of the RV4 stage.
1.2	Risk and Impact Identification	Include the risks and impacts derived from the actions of the Project's subcontractors and primary suppliers in the risks and impacts analysis. Actively involve workers in the identification of environmental and social risks and impacts.	<ol style="list-style-type: none"> The Project's risks and impacts matrix includes those that derive from the Project's subcontractors and primary suppliers. Worker induction and training program includes guidelines on how to participate in the identification of environmental and social risks and impacts. 	<ol style="list-style-type: none"> Prior to starting construction of the Chimbote Bypass (or the corresponding section). Regularly during the environmental and social monitoring following the financial closing.
1.3	Organizational Capacities and Competences	Ensure that AUNOR, OHL Construcción, the future EPCs of the Chimbote stage, and the support consultants have the appropriate roles, responsibilities, and capacity of technical, logistical, operational, and social-environmental personnel, in keeping with the Project's construction restart schedule.	<ol style="list-style-type: none"> Hiring schedule. Evidence of hiring. 	<ol style="list-style-type: none"> Prior to the first disbursement. Regularly during the environmental and social monitoring following the financial closing.
1.4	Emergency Preparedness and Response	Supplement the worker training program, including senior management, considering specific actions for employees exposed to specific risks, including contractors. Emergency management should include guidelines for the Project's procurement system that is consistent with the risk assessment and emergency planning.	<ol style="list-style-type: none"> Updated Training Program and Emergency Plan, including actions for workers exposed to specific risks. Training program for the Procurement Department on emergency planning and risk management.. 	<ol style="list-style-type: none"> Prior to restarting construction of the RV4 stage. Prior to starting construction of the Chimbote Bypass (or the corresponding section).

No.	Aspect	Action	Product	Due date
1.5	Regular reports to the communities	Inform both the individual involved in grievances and the communities in the Project's direct area of influence (DAI) about the impact management action plans, the preventive actions, and the results. Complement the channels used to inform affected communities: website, written reports, etc.	<ol style="list-style-type: none"> 1. Communication and consultation program, updating complementary channels to provide regular reports to the communities about impact management in the project. 2. Record of addressed queries and concerns. 	<ol style="list-style-type: none"> 1. Prior to restarting construction of the RV4 stage. 2. Regularly during the environmental and social monitoring following the financial closing.
PS 2: Labor and Working conditions				
2.1	Local employment	Ensure that future EPCs adequately and comprehensively satisfy local employment expectations and demands for the Chimbote Bypass by developing a local employment procedure of their own, considering the appropriate management of trade unions.	<ol style="list-style-type: none"> 1. Comprehensive Local Employment Procedure for the RV4 stage. 2. Comprehensive Local Employment Procedures for the Chimbote stage. 3. Evidence of the implementation of the Comprehensive Procedure. 	<ol style="list-style-type: none"> 1. Prior to restarting construction of the RV4 stage. 2. Prior to starting construction of the Chimbote Bypass (or the corresponding section). 3. Regularly during the environmental and social monitoring following the financial closing.
2.2	Grievance mechanism for AUNOR employees	Incorporate an option for workers to communicate their grievances anonymously. Include this clarification in workers' induction processes, confirming that the anonymous nature of the form in no way invalidates it.	<ol style="list-style-type: none"> 1. Updated Grievance or Suggestions ballot, including an anonymous grievance option. 2. Evidence of worker induction on the grievance mechanism. 	<ol style="list-style-type: none"> 1. Prior to restarting construction of the RV4 stage. 2. First environmental and social monitoring following the financial closing.
2.3	AUNOR's Occupational Health and Safety Management System	Update the Occupational Health and Safety Management System of the RV4 stage to include: (a) policy and objectives regarding occupational health and safety; (b) internal occupational health and safety regulations; (c) hazard identification, risk assessment, and control measures; (d) risk map; (e) preventive activity planning; (f) annual occupational health and safety program.	<ol style="list-style-type: none"> 1. Occupational Health and Safety Management System documents, revised for 2019. 	<ol style="list-style-type: none"> 1. 30 days prior to restarting the construction activities of the RV4 stage.
2.4	Training	Review and update the Training Schedule in compliance with national regulations.	<ol style="list-style-type: none"> 1. Updated Training Schedule 2. Evidence of the implementation of the Training Schedule. 	<ol style="list-style-type: none"> 1. First environmental and social monitoring following the financial closing. 2. First environmental and social monitoring following the financial closing.

No.	Aspect	Action	Product	Due date
2.5	Subcontractors	Continue working with subcontractors to include the requirement of compliance with IFC's Performance Standards (PS) in future contract clauses.	<ol style="list-style-type: none"> 1. EPC Contracts with Chimbote include the requirement to align with the Project's Environmental, Social, and Health and Safety Policies. 2. Implementation of a comprehensive management system aligned with the PS. 3. Evidence of the training for new subcontractors on the PS. 	<ol style="list-style-type: none"> 1. Prior to starting construction of the Chimbote Bypass (or the corresponding section). 2. Prior to starting construction of the Chimbote Bypass (or the corresponding section). 3. During construction, refurbishment, and improvement activities, as well as in the operation and maintenance stages.
PS 3: Resource Efficiency and Pollution Prevention				
3.1	Greenhouse gases	<p>Quantify the Project's annual GHG emissions to confirm that they do not exceed the Equator Principles limit of 100,000 tons of CO₂ equivalent per year (Scope 1 and 2).</p> <p>Implement the GHG emission reduction plan designed for the Project.</p>	<ol style="list-style-type: none"> 1. Quantification of the Project's annual GHG emissions. 2. Description of measures to implement the plan. 	<ol style="list-style-type: none"> 1. Second environmental and social monitoring following the financial closing. 2. During construction, refurbishment, and improvement activities, as well as in the operation and maintenance stages.
PS 4: Community Health and Safety				
4.1	Blasting on the RV4	Should it be necessary to continue blasting activities in the RV4 stage, review and update the explosives and blasting control procedure (I-PRE-04CO-PE-010000) to include the responsibility of communicating with the communities located close to the blast radius and the actions to be taken by OHL Construcción with respect to the communities prior to detonation.	<ol style="list-style-type: none"> 1. Updated Explosives and Blasting Control Procedure (I-PRE-04CO-PE-010000). 	<ol style="list-style-type: none"> 1. 30 days prior to restarting the blasting activities, if applicable.
PS 5: Land Acquisition and Involuntary Resettlement				
5.1	Post-compensation monitoring	Promote the institutionalization of a post-compensation monitoring program to measure and monitor the impacts and benefits of the Project's land release process.	<ol style="list-style-type: none"> 1. Evidence of the actions taken by AUNOR. 	<ol style="list-style-type: none"> 1. Regularly during the environmental and social monitoring following the financial closing.
5.2	La Victoria Resettlement	Support the review of the La Victoria relocation process schedules to avoid inconsistencies or unrealistic time estimates. Maintain active coordination with the PACRI and, to the extent possible, participate in meetings with the PACRI Local Committees in order to confirm the times and processes proposed in relation to the Project.	<ol style="list-style-type: none"> 1. Evidence of the actions taken by AUNOR. 	<ol style="list-style-type: none"> 1. Regularly during the environmental and social monitoring following the financial closing.
5.3	Grievance Mechanism	Modify the grievance and claims mechanism to allow receiving verbal complaints.	<ol style="list-style-type: none"> 1. Modified mechanism. 	<ol style="list-style-type: none"> 1. Regularly during the environmental and social monitoring following the financial closing.
PS 6: Biodiversity Conservation and sustainable management of natural resources				

No.	Aspect	Action	Product	Due date
6.1	Environmental Management Plan	Add all threatened and/or restricted distribution species (e.g. <i>Lycalopex sechurae</i> and <i>Phyllodactylus lepidopygus</i>) that have been identified in the Project's DAI to the Environmental Management Plan.	1. Updated Environmental Management Plan.	1. First environmental and social monitoring following the financial closing.
6.2	Endemic or restricted distribution species	Include threatened species with possible presence in the Project DAI (<i>Amorphochilus schnablii</i> , <i>Planoina genovensium</i> , <i>Myiarchus semirufus</i> and <i>Phytotoma raimondii</i>) in the Environmental Management Plan: (i) add the species to the Environmental Training Program; and (ii) develop a procedure to report chance sightings of these species during the construction stage.	1. Evidence of the modified content of the Environmental Training Program. 2. Procedure for reporting chance sightings of threatened species.	1. Second environmental and social monitoring following the financial closing. 2. Second environmental and social monitoring following the financial closing.
6.3	Plant cover or habitat map	Determine the extent and location of natural habitats (including shrubs and dry forests, in addition to other plant formations) and quantify the ecological characteristics (diversity, abundance, and density of flora and fauna) in all natural habitats within the Project's DAI.	1. Map of plants in the Project's DAI that quantifies the plant cover that will be affected by the Project.	1. Second environmental and social monitoring following the financial closing.
6.4	Flora and fauna monitoring	Include in the flora and fauna monitoring protocols the necessary field effort to properly typify biodiversity in terms of the sampled area and the number of samples needed.	1. Updated flora and fauna monitoring protocol.	1. First environmental and social monitoring following the financial closing.
PS 7: Indigenous Peoples (N/A)				
PS 8: Cultural Heritage				
8.1	Certificate of Absence of Archaeological Remains (CAAR)	Obtain the missing CIRAs and implement the Archaeological Monitoring Plans in the construction areas.	1. Evidence of having obtained the missing CIRAs. 2. Evidence of having implemented the Archaeological Monitoring Plans.	1. Prior to the start of construction of each remaining area in the RV4 and Chimbote stages. 2. Regularly during the environmental and social monitoring following the financial closing.
8.2	Cultural Heritage Comprehensive Management Plan	Develop and implement a Cultural Heritage Comprehensive Management Plan that considers historic monuments and living heritage and incorporates them into the Project's archaeological monitoring plans.	1. Cultural Heritage Comprehensive Management Plan.	1. Second environmental and social monitoring following the financial closing.

6. Contact Information

For project inquiries, including environmental and social questions related to an IDB Invest transaction please contact the client (see Investment Summary tab), or IDB Invest using the email divulgacionpublica@iadb.org. As a last resort, affected communities have access to the IDB Invest Independent Consultation and Investigation Mechanism by writing to mecanismo@iadb.org or MICI@iadb.org, or calling +1(202) 623-3952.