

1. Overview and Perspectives on the Scope of IDB Invest's Environmental and Social Review

This Project involves two main companies or components, each with specific investment needs. The companies involved are both located in the city of Managua, Nicaragua. They are: (i) Compañía Cervecera de Nicaragua S.A. (CCN), whose loan will finance the expansion of its production lines and the improvement and expansion of its infrastructure, in addition to leveraging its working capital and future growth; and (ii) Compañía Recicladora de Nicaragua S.A. (CRN), whose loan will be used to purchase machinery, expand infrastructure and leverage working capital and future growth.

CCN is a private equity company incorporated as a corporation in Nicaragua, which develops, produces and distributes beer, natural mineral water, and soft drinks. Its main beer and beverage production facilities are located in Managua,^[1] the capital of Nicaragua. In addition, it has a water filling plant in the city of Rivas and in 2018 it opened a water filling plant in the city of León. It has eight foreign distribution centers and silos in the city of El Realejo, Chinandega, where raw materials are received.

CCN was founded by a group of Nicaraguan investors and started operations in 1926. Throughout all these years, it has been expanded, modernized, and diversified according to the constant and changing requirements of the market. By 2018, CCN facilities had machinery and equipment to prepare the following products: Toña, Toña Lite, Victoria Clásica, Victoria Frost, Premium, Victoria Maestro, and Mytos beers; Fuente Pura and Brisa mineral water; D'Frutta and Yupi flavored beverages.

CRN's objective is the operation and management of an industrial complex dedicated to the collection and recycling of selected solid waste into export raw materials that will be used in other production processes. The waste managed by the Project is solid ferrous and non-ferrous non-hazardous solid waste; in addition to other recyclable waste, such as PET plastic containers, HDPE, PP, cardboard, paper, etc.

CRN aims to be the first plant to complete the recycling cycle through the transformation of solid waste, generating economic, social, and environmental value. The Project considers a new industrial production line to process recycled plastic (PET) into plastic containers for use in the food and beverage industry.

The scope of BID Invest's environmental and social review during the evaluation of CCN and CRN included the analysis of the Project's environmental and sanitary permits, meetings and conference calls with the Borrower's representatives. In addition, BID Invest's environmental and social specialist conducted an Environmental and Social Due Diligence (ESDD) visit from April 24-26, 2019 in the City of Managua in Nicaragua, which included the following activities: (i) meeting with CNN and CRN staff; (ii) inspection visit to each Plant (that of CNN and that of CRN) in Managua and their surrounding areas of influence; and (iii) informal "spot" interviews with CRN workers and transporters. At the end of this ESDD visit, documents associated with manuals, procedures, licenses and permits, 2017 and 2018 operation reports, laboratory test results reports (mainly on the quality of the discharge waters), among others, were reviewed.

2. Environmental and Social Categorization and Rationale

This is a **Category B** Project, in accordance with IDB Invest's Environmental and Social Sustainability Policy, since its environmental and social (E&S) impacts and risks are expected to be generally reversible and can be mitigated using available measures and existing technologies.

Possible environmental and social impacts and risks of activities related to the first Project component, i.e. those associated with CCN infrastructure expansions and its future growth (see Section 1) include: (i) non-hazardous waste generation; (ii) pollutant emissions into the atmosphere (mainly, combustion gases from construction machinery and equipment); (iii) noise pollution; and (iv) occupational health and safety risks for workers. The environmental risks and impacts associated to the operation and maintenance (“O&M”) of CCN’s production lines and/or infrastructure relate to: (i) occupational health and safety risks for workers; (ii) generation of hazardous and non-hazardous solid waste inherent to the processes; and (iii) use of resources, such as water sources (mainly underground wells) and power and fuels for steam generation (heat source).

The possible environmental and social risks and impacts of the activities that relate to the second Project component concerning CRN (see Section 1), including its infrastructure expansion and future growth within its current Plant site in Managua are: (i) generation of hazardous and non-hazardous waste; (ii) emission of pollutants into the atmosphere (mainly combustion gases from construction machinery and equipment); (iii) wastewater generation; (iv) noise pollution; (v) ground movement; (vi) removal of vegetation; (vii) ground-borne vibrations; (viii) occupational safety and health risks to workers; and (ix) community health, safety, and security concerns related to increased vehicular traffic. During O&M, the environmental risks and impacts mainly relate to: (i) worker health and safety; (ii) generation of hazardous and non-hazardous solid waste and liquid waste (mainly domestic wastewater), (iii) atmospheric emissions (mainly combustion gases from the vehicles transporting solid waste) and odors; and (iv) use of resources, such as power and water sources (underground wells for cleaning the areas).

For both CCN and CRN, natural disasters such as earthquakes, fires, floods, and hurricanes do not pose a significant risk, either from damage to physical infrastructure or from possible loss of business.

Based on the ESDD visit and the information provided in the Environmental and Social Questionnaire, both CCN and CRN are expected to trigger the following International Finance Corporation (IFC) Performance Standards (PS):

- PS-1. Assessment and Management of Environmental and Social Risks and Impacts
- PS-2. Labor and Working Conditions
- PS-3. Resource Efficiency and Pollution Prevention
- PS-4. Community Health, Safety and Security
- PS-8. Cultural Heritage

PS-5, Land Acquisition and Involuntary Resettlement, is not expected to be triggered, as the Project will be developed within the company's own land; likewise PS-6, Conservation and Sustainable Management of Living Natural Resources, is not expected to be triggered either, as the Project will be developed on previously intervened own land (for mixed and industrial use) and land in disuse (CRN facilities) with regenerative vegetation (mainly grass) of little ecological value; finally, PS-7, Indigenous Peoples, is not expected to be triggered, as none exist in the Project’s development area.

3. Environmental and Social Context

Compañía Cervecera de Nicaragua SA (CCN)

CCN's industrial complex is located in the José Dolores Estrada neighborhood, 600m north of km 6.5 of the North Highway, in the city of Managua, the capital of Nicaragua. It is currently one of the most technologically advanced and modern breweries in Latin America. Its production process is

fully automated and safe, with cutting-edge technology. Its industrial activity consists of the production, distribution, and sale of alcoholic and non-alcoholic beverages.

CCN has a certified Integrated Management System, which follows the guidelines of ISO 9001:2015 Standards: Quality Management, OHSAS 18001:2007: Occupational Health and Safety Management System, and HACCP (Hazard Analysis and Critical Control Points). Currently, the company is in the process of transitioning from OHSAS 18001:2007 to ISO 45001:2018: Occupational Health and Safety Management System.

Finally, since April 2014, CCN has been an active signatory of the United Nations Global Compact and its 10 principles concerning human rights, labor rights, the environment and the fight against corruption. In addition, each year the company publishes a Sustainability Report, with the latest one dating back to 2018.[\[2\]](#)

Compañía Recicladora de Nicaragua SA (CRN)

The project will be located in the city of Managua; Km 3.5 of the North Highway, San Luis Norte Neighborhood, District IV, 50 meters to the West of the Nuevo Diario Stoplight; Left Side; Site where Club Victoria operated. The land has already been altered and today, where no trace of structures and paved roads exist, the soil has regenerative vegetation of very little ecological value (pastures).

Nicaragua generates 5,200 tons/day of waste, equivalent to an annual production of 1.2 million tons per year. 40% of this are raw materials that can be recycled, although what is actually used is between 7% and 10%. Eighty-five percent of what is recycled is exported to different mills in Central America, Europe and Asia. The remaining 25% remains in Nicaragua in mills, toilet paper and napkin processors, and aluminum foundries.

Recycling is a nascent industry in Nicaragua that generates millions of dollars in exports, according to data from the Export Processing Center (Cetrex, for its acronym in Spanish). In 2016, the combined sale of scrap metal, wastepaper and plastic generated US\$21.5 million for Nicaragua. However, environmental experts believe that a greater installed processing capacity can further enhance exports and increase the profits generated by this sector.

In this sense, CRN aims to be the first plant to recycle solid waste, generating economic, social, and environmental value. The implementation of the second Project component aims to expand CRN's installed and operating capacity, so that through the use of recycling technologies and the management of recoverable waste or waste with residual economic value, the use of virgin resources and the final disposal of still recoverable waste is reduced, preventing ground pollution from remaining in the environment (e.g., watercourses, streets, roads, beaches, etc.) and increasing the perception of cleanliness in Nicaragua. Likewise, this Project component will contribute to the creation of new sources of income at the base of the social pyramid through 400 direct jobs and approximately 15,000 indirect jobs.

As for the recyclable/recoverable materials supply chain, waste collection is carried out individually, but there are also successful cases in which collectors have set up cooperatives that allow them not only to increase their income, but also to cover a larger collection area, which translates into a substantial improvement in the environment since it reduces the environmental impact generated by waste such as scrap, plastic, paper, or electronic waste that has been improperly disposed of. According to data from the Nicaraguan Development Institute (INDE, for its acronym in Spanish), there are more than 30 thousand collectors, of which only 20% are formally incorporated. To date, CRN has managed to create a database of up to 360 suppliers, approximately 47% of whom are

collectors who use trucks ("truck drivers"), 30% are collectors who use other own means of collection and transport, 6% are collectors who use carts often pulled by pack animals (mainly horses) or by themselves ("carretoneros"), and 17% are occasional collectors who travel on foot or use small wheelbarrows.

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 E&S Assessment and Management System

Based on the analysis of the data provided by CCN, this company manages and develops environmental aspects under the principle of pollution prevention, through the implementation of an Environmental Management System (EMS) under the guidelines set forth by the International Standard ISO 14001:2015, which in turn is part of the Integrated Management System that is supplemented with: (i) a Quality Management System (ISO 9001:2015); (ii) an Occupational Health and Safety Management System (OHSAS 18001:2015); and (iii) HACCP Food Safety System (Hazard Analysis and Critical Control Points according to the Codex Alimentarius).

CRN has not implemented an EMS like the one used by CMM, wherefore to comply with PS-1, it shall develop an Environmental and Social Management System (ESMS) specific to its operations. To this end, it will develop the CRN ESMS in keeping with PS-1, including: (i) policy (see Section 4.1.b); (ii) internal procedures to identify, assess, and manage possible E&S, OHS and occupational risks and impacts associated with each Project activity and for workers engaged by third parties, including contractors and subcontractors; (iii) internal procedures to ensure compliance with the Environmental Management Plan (ESMP); (iv) organizational capacity and competency, including the definition of roles and allocation of responsibilities for the implementation of this ESMS; (v) emergency preparedness and response protocols (see Section 4.1.f); (vi) stakeholder engagement methods or planning (see Section 4.1.h); (vii) external communication and grievance mechanism (see Section 4.1.i); (ix) protocols for the disclosure of information, decision making and training to communities; (x) protocols for the evaluation and continuous improvement of the ESMS; and (xi) regular audits and inspections of E&S and OHS requirements under Law No. 217 General Law on the Environment and Natural Resources^[3] of Nicaragua (Action 1.1 of the ESAP)^[4].

4.1.b Policy

According to the data provided, CCN has a Comprehensive Management Policy in place that reflects its commitment to quality, safety, the environment, and the safety and health of its workers. The Comprehensive Management Policy fulfills the requirement of PS-1, since it provides that Senior Management through the Department Heads, is responsible for ensuring compliance with said Comprehensive Policy. This policy is clearly signposted in building accesses and is available to all company users through its intranet. Its communication/disclosure is also measured via internal and external audits, which are conducted twice a year.

Based on its operations, CRN shall adopt and modify/adapt CCN's Comprehensive Management Policy and implement a Training Program to be implemented and disseminated to all employees (Action 1.2 of the ESAP).

4.1.c Identification of Risks and Impacts

In 2014, when it joined the United Nations Global Compact and its 10 principles, CCN developed an Environmental Diagnosis through a Consulting Firm to identify environmental and social (E&S) risks

or impacts. From this Diagnosis, it is clear that the Environmental Management Program should focus on Comprehensive Solid Waste Management, Comprehensive Hazardous Waste Management, Comprehensive Water Management, Environmental Education, Energy Efficiency, Atmospheric Emissions and on the Emergency Plans for Environmental Risks. Likewise, through the EMS, CCN keeps the identification of E&S risks and impacts up to date and submits its updated Environmental Management Program (see Section 4.1.d) to the Ministry of the Environment and Natural Resources (MARENA, for its acronym in Spanish).

Furthermore, as well as verifying compliance with environmental impact regulations, CRN must identify and assess E&S risks and impacts for all new buildings, especially the expansion of the industrial complex for the collection, recycling and export of recyclable materials and the new PET plastic production lines for the manufacture of food-grade plastic containers ("the improvements"). Based on the foregoing, regardless of the mechanism used to comply with Nicaragua's Environmental Law in terms of permits and environmental impact assessment,^[5] CRN will undertake to identify and assess impacts and risks, taking into account greenhouse gas emissions, relevant risks associated with climate change, and opportunities for adaptation (Action 1.3 of the ESAP). Due to the risks associated with primary supply chains, CRN shall extend its identification and assessment of impacts and risks to the main collectors of recyclable/recoverable materials and take appropriate corrective measures in due course (see Section 4.2.e).

Finally, given that the execution and operation of the Project is dynamic, CRN, in compliance with PS-1, will continuously update the E&S and OHS risk matrix for each phase of the Project (Design, Construction, O&M and/or Closure/Decommissioning) for all its operations, in order to obtain, monitor, and control operating/business permits or licenses (see Section 4.1.g).

4.1.d Management Program

CCN has an Environmental Management Program (EMP) that was authorized by the MARENA in 2017.^[6] The EMP has a defined scope for all physical facilities, administrative areas, processes, and services developed in the CCN industrial complex, located at the central plant in Managua.

CCN's EMP has the following sub-programs:

a. Hazardous and Non-Hazardous Solid Waste Management, performed in accordance with technical standards NTON 05-014-02^[7] and NTON 05-015-02.^[8]

b. Comprehensive Water Management, with a holistic approach that covers everything from the extraction of this resource for consumption, to wastewater treatment and usage offsets, through Payment for Environmental Water Services.

c. Emissions Management, with the stated goal of being a "Carbon Neutral Company" by 2025, responsible for offsetting and/or reducing the amount of greenhouse gases that are emitted as part of productive and commercial activities. In keeping with technical standard NTON 05-012-02,^[9] annual air quality monitoring was also implemented, as was annual noise level monitoring.

d. Management of the Biotic Environment, which includes a biodiversity protection component in its internal procedures, such as updating the "CCN General Forestry Management Plan" and the "Annual Forestry Operational Plan", which is intended to identify the current state of the company's forests and implement measures that favor the adequate maintenance and support the creation of new habitats.

The EMP prepared by CCN, which is generally compliant with PS-1, has clearly defined actions to identify and monitor related risks and to mitigate such risks during the construction and operation of

the distribution center, as do each of these programs. CCN has also prepared an Action Plan for Adapting to Climate Change (2018-2025) as one of the company's strategic planning instruments. It applies tools to help it identify the risks and opportunities it faces in light of climate change and promotes actions to reduce vulnerability, manage risks, and adopt the necessary measures to address climate variability and change.

CRN will, however, be required to prepare an EMP specific to the construction stage and adapt it for the O&M stage, in keeping with the provisions of Nicaragua's E&S and OHS regulations and PS-1. This EMP will focus on the construction of the expansion of the industrial complex for the collection, recycling and export of recyclable materials and the new PET plastic production lines for the manufacture of food-grade plastic containers ("the improvements"). To this end, CRN will develop a specific EMP for the new industrial complex, with mitigation and compensation measures to address each major negative and positive environmental impact during the construction phase (Action 1.4 of the ESAP). This EMP will include the following measures: (i) an Impact Management Program for the physical, biological, and visual environment, which will include mitigation measures for any impact on terrain relief (in the event of earthmoving or earthworks); hazardous and non-hazardous solid waste management; control of polluting gases emissions by construction machinery and equipment; disturbance of the environment due to the increased generation of dust and noise; control of liquid effluents, both industrial and domestic; (ii) an Impact Management Program for the socioeconomic environment, which will include safety measures for the communities/dwellings in the vicinity of the Project; training for construction managers and workers; measures for inter-institutional coordination; and measures to ensure safe and hygienic-sanitary conditions for workers during construction. Similarly, the O&M EMP will include the following measures: (i) an Environmental Monitoring and Vigilance Program, (ii) a Comprehensive Solid and Liquid Waste Management Program, which emphasizes environmentally friendly measures to store and dispose of any waste that cannot be reduced, reused or recycled, and also provides special measures for hazardous waste management, such as oils, greases, paints, solvents, medicines, disinfectants, or any other product that requires special management used during O&M activities in the CRN industrial complex under local environmental and health regulations; and (iii) an Occupational Risk Prevention Management Program (see Section 4.2.b).

4.1.e Organizational Capacity and Competency

CCN has an organizational structure dedicated to environmental and social (E&S) issues that comprises the Environmental Management Department and the Business Management Department, both of which report to the Quality, Safety, and Sustainability Manager. At CNN, these departments are respectively responsible for implement and reviewing the EMP and the ESMS.

Similarly, in keeping with the General Law on Occupational Health and Safety (Law No. 618), CCN has an Occupational Health and Safety Department and a Joint Commission on Occupational Health and Safety (JCOHS).

CRN, however, lacks an organizational structure dedicated to E&S and OHS matters such as that of CNN; therefore, to comply with PS-1, it shall appoint a person responsible for E&S matters as part of its organizational structure; in addition to defining the functions, responsibilities, and powers of every person responsible for environmental and social matters, in order to implement the ESMS. CRN will also be required to conduct an introductory and refresher training program at least once a year for all personnel responsible for the environment and for OHS.

In this sense, a dedicated environmental and social unit will be created for the Project, which will be responsible for planning, implementing, and monitoring all required E&S and OHS actions. CRN will therefore structure this unit so as to guarantee suitable human and financial resources within the

ESMS and will appoint and maintain a qualified Environmental Officer or Manager, who, together with the OHS Officer or Manager, shall report directly to the corresponding Manager/Director on the E&S and OHS performance of the facilities, but with independent reporting lines to the General Management or Directorate (Action 1.5 of the ESAP). Likewise, CRN shall form/constitute its JCOHS and register it with the Ministry of Labor of Nicaragua (MITRAB, for its acronym in Spanish), in keeping with the provisions of Law No. 618 (Action 1.5 of the ESAP)

4.1.f Emergency Preparedness and Response

Both CCN and CRN have an Emergency Response Plan (ERP) or Emergency Plan, fulfilling Law No. 618 on Occupational Health and Safety and Technical Standard NTON 22 000-04, which defines the guidelines for action in the event of the different scenarios and incidents identified, including those of a technological (e.g. fires and explosions, ammonia leaks, non-hazardous and hazardous material spills, including if greater than 55 gal or 100 kg, LPG leaks, and spills, fire, and explosion events at the CCN gas station), natural (e.g., forest and urban fires, hurricanes or tropical storms, floods, seismic activity or earthquakes) and anthropogenic (e.g., civil disturbances and armed conflicts) nature, all of which are assessed in full through drills conducted throughout the year. Likewise, both companies have Emergency Brigades Certification (BRAE, for its acronym in Spanish), with the corresponding members and training, fulfilling Technical Standards NTON 22 001-04^[10] and NTON 22 003-10.^[11]

In addition, to comply with PS-1, each ERP will need to develop a Training Plan and a Root Cause Analysis procedure for each major accident or fatality, as well as a description of the corrective actions required to minimize the risk of new occurrences (Action 1.6 of the ESAP).

4.1.g Monitoring and Review

CCN is responsible for ensuring the implementation of the follow-up, monitoring and control plans described in the Project EMP (see Section 4.1.d). To this end, both companies will develop or update, as appropriate, a compliance matrix with its set of key performance indicators (KPIs) to measure the effectiveness of the EMP and compliance with all legal and contractual obligations for each existing industrial complex and during the construction and O&M phases of the new process (es) and facilities to be built as part of the Project (Action 1.7 of the ESAP). This compliance matrix shall include: (i) the competent Authority granting the approval or issuing the permit/license; (ii) the issuance and effective dates; (iii) the person within CMI-IPA responsible for follow-up/compliance; and (iv) future communications and compliance procedures.

Finally, to comply with the requirements of PS-1, an independent E&S consultant shall prepare for CCN and CRN, on a regular basis, a consolidated report on the compliance status of all E&S and OHS policies and measures applicable to the Project works, including the progress of ESMS actions related to the identified KPIs; as well as the compliance status with IDB Invest's Environmental and Social Sustainability Policy, Nicaragua's E&S and OHS legislation, and the IFC Performance Standards (Action 1.8 of the ESAP).

4.1.h Takeholder Engagement

The participation of social actors is a permanent process that, for this Project, should include: (i) analysis of social actors and planning of their participation; (ii) dissemination of information; (iii) complaints/grievance mechanism; and (iv) provision of periodic reports to the community. In this regard, starting in 2017, CCN began the implementation of a Stakeholder Engagement Management Plan that aims to prepare and introduce a tool to manage the company's stakeholder engagement and to create matrices of stakeholders and relevant issues.

To comply with PS-1, however, CCN's Stakeholder Engagement Management Plan shall incorporate the following (Action 1.9 of the ESAP): (i) differentiated measures to enable the effective engagement of disadvantaged or vulnerable groups; (ii) mechanism to ensure that community representatives actually represent the views of the affected communities; (iii) details on how information is disclosed to stakeholders; (iv) details on the engagement process among stakeholder communities and how to access the grievance mechanism (see Section 4.1.i).

CRN does not have a Stakeholder Engagement Management Plan, so it shall adopt and modify/adapt such CCN Plan to fit its operations and incorporate a Training Program to be implemented and disseminated to all employees (Action 1.9 of the ESAP).

4.1.i External Communication and Grievance Mechanisms

As for external communications and grievances received from customers, CCN, in keeping with the provisions of the Code of Ethics, channels such grievances and complaints through the Customer Service Department, which has a telephone number and an e-mail address.

CRN has a grievance mechanism similar to that of CCN, so in keeping with the provisions of PS-1, CRN is required to document external communications, detailing: (i) how information is received from key stakeholders and/or the general public; (ii) how grievances are evaluated; (iii) how responses are provided and followed up, concluding with closing with the grievance; and (iv) any adjustments or improvement to the EMP, in terms of communication and the disclosure of information. CRN will therefore provide the following:

- An External Grievance Mechanism (focused on the key stakeholders, including the local authorities and communities and/or neighboring land owners that are affected or with any stake in the indirect area of influence of the Project works, within a radius of approximately 250 m) for the Construction Phase of the new infrastructure expansions and future growth; and copies of evidence of its implementation. Such grievance mechanism shall include details of how these grievances or complaints are recorded, investigated/evaluated, and the respective follow-up and closure/resolution process (Action 1.10 of the ESAP).
- A similar External Grievance Mechanism during the Project works O&M (Action 1.11 of the ESAP), that incorporates the experiences and lessons learned in the construction phase.

4.1.j Ongoing Reporting to Affected Communities

CCN offers information for analysis through its annual sustainability report (www.ccn.com.ni) and through the United Nations Global Compact website, which monitors corporate sustainability (<https://www.unglobalcompact.org/what-is-gc/participants/35361#cop>). CNN's sustainability report has been available on that website since 2014, when it became a signatory.

CRN provides information through social media (@CRNicaraguaSA) on the following sites: <https://www.facebook.com/CRNicaraguaSA/>

4.2 Labor and Working Conditions

4.2.a Working Conditions and Management of Worker Relationships

Human Resources Policy and Procedures

CCN has a series of instruments to manage its human resources, the most important of which include: (i) Internal Labor Regulations; (ii) Human Talent Recruitment Policy; (iv) Training and Development Policy; (v) Policy for the Employment and Provision of Services of Workers

Engagement by Third Parties; (vi) Policy on Insurance Policies; and (vii) Vacation and Leave Days Policy.

However, CRN lacks an Internal Labor Regulation and Human Resources Policy, so it shall develop such Human Resources Policy and its procedures in keeping with the Labor Code in force in Nicaragua (Action 2.1 of the ESAP). This policy and its procedures shall include, among others, the promotion of gender equality and non-discrimination, equal opportunity, fair treatment, a contract with suitable working conditions and terms of employment, notice of dismissal and severance pay for employees, and an Employee Code of Conduct. CRN will also set up a mechanism to ensure that its contractors and their subcontractors also comply with this HR policy and its procedures.

All aspects related to labor and working conditions at CCN and CRN are managed by the Human Resources Management, with support from the Occupational Health and Safety Department, as appropriate.

Working Conditions and Terms of Employment

Both CRN and CCN, the latter through its Internal Labor Regulations and its Code of Ethics, comply with the Nicaraguan Labor Code (Law No. 185 of 1996) and its amendments, as well as with the Equal Rights and Opportunity Act (Law No. 648 of 2008). CCN also has a Human Talent Recruitment Procedure: Personnel Recruitment, Selection, and Employment (PSC D01.12), which in turn uses the following procedures: PSC D02.01 Personnel Education (Induction, Training, and Education) and PSC B03.01 Modification of the Organizational Structure; and the following forms: FSC D01.12.000.01 Interview Guide, FSC D01.12.000.02 Position Requirements-APP, FSC D01.12.000.03 Verification of Work References, and FSC D01.37.000.05 Matrix for the Application of Medical Exams.

To comply with PS-2, however, CRN shall submit the following procedures, in keeping with the Nicaraguan Labor Code: (i) employment procedure and evidence of its implementation for own workers and those engaged by third parties, in which the conditions for employment and dismissal comply with local and International Labor Organization (ILO) regulations, including, but not limited to, regulations to prevent child labor and forced labor; (ii) procedure for employment and dismissal/retrenchment of in-house employees and the procedures adopted by contractors for their workers; and (iii) procedures for managing and monitoring the performance of own and third-party workers (Action 2.2 of the ESAP). Likewise, a Coexistence Handbook (regulation) will be prepared for CRN employees, contractors and subcontractors (Action 2.3 of the ESAP), as well as an Internal Grievance Mechanism.

Finally, both companies are regularly audited by the MITRAB and the Child and Adolescent Labor Inspectorate, which have not recorded any negative findings at the time of the writing of this report.

Workers' Organizations

Nicaragua is a signatory to a number of international conventions and treaties of the International Labor Organization (ILO) relating to workers' rights, including Convention No. 87 concerning Freedom of Association and Protection of the Right to Organize, and Convention No. 98 concerning the Right to Organize and Collective Bargaining. In this sense, CRN and CCN, through their Internal Labor Regulations, comply with the Labor Code of Nicaragua, which stipulates employers' obligations with regard to trade union rights and non-interference in the constitution and operation of unions (Art. 17). Finally, CCN has signed a Collective Agreement with the executive board of the trade union called "*Sindicato de Trabajadores de la Compañía Cervecera Nicaragüense S.A.*" (Compañía Cervecera Nicaragüense S.A. Trade Union) that is in force. The Union Executive Board is

currently in the process of updating the Agreement, which will have a term of 1 year.

Non-discrimination and Equal Opportunity

See the description of the Human Resources Policies and Procedures. In addition, Nicaragua is a signatory to several ILO international conventions and treaties relating to workers' rights, including Convention No. 100 on Equal Remuneration and Convention No. 111 concerning Discrimination in Respect of Employment and Occupation.

Retrenchment

See the description of the working conditions and terms of employment.

Grievance Mechanism

Grupo CCN has a mechanism for managing internal grievances and suggestions that fulfills the requirements of PS-2. Human Resources Management has informed employees that they can address any situation with their direct supervisor or with Human Resources. Should it be a major situation (for example, immoral behavior, lack of values that may affect the employee or the company) employees may use the reporting channel specified in the Code of Ethics (e-mail, link on the website, toll-free telephone line and cell phone number), which has been officially communicated to all personnel through the form of acknowledgement of receipt, reading, and understanding of the Code.

In addition, CRN has a grievance mechanism similar to that of CCN, wherefore in keeping with the provisions of PS-2, CRN is required to document internal communications with its employees, contractors, and subcontractors, detailing: (i) how information is received; (ii) how these complaints are evaluated; and (iii) how responses are provided and followed up, concluding with the closing of the complaint. In this regard, CRN will provide the following:

- An Internal Grievance Mechanism (for direct employees, contractors, and subcontractors) for the construction phase of the new infrastructure expansions and future growth; and copies of evidence of its implementation. This complaints mechanism should include details of how these complaints or claims are registered, investigated/evaluated, and the respective follow-up and closure/resolution process (Action 2.4 of the ESAP).
- A similar Internal Grievance Mechanism during the O&M of the CRN industrial complex (Action 2.5 of the ESAP) that incorporates the experiences and lessons learned in the construction phase.

4.2.b Protecting the Workforce

Nicaragua is a signatory to several ILO international conventions and treaties relating to workers' rights, including Conventions No. 138 concerning Minimum Age for Admission to Employment, Convention No. 182 concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor, Convention No. 29 concerning Forced or Compulsory Labor and Convention No. 105 concerning the Abolition of Forced Labor. Likewise, the Labor Code (Law No. 195 of 1996) regulates worker relationships by prescribing the minimum rights and duties of employers and workers, and the Equal Rights and Opportunity Act (Law No. 648 of 2008) promotes equality and equity in the enjoyment of human, civil, political, economic, social, and cultural rights between women and men.

In this regard, CRN has its Internal Labor Regulations and its Code of Ethics, which comply with the Nicaraguan Labor Code (Law No. 185 of 1996) and its reforms. These Internal Regulations comply

with the provisions of PS-2, since it has the following sections: (i) General Provisions; (ii) Obligations and Law in general; (iii) Employment Policy; (iv) Working Conditions; (v) Vacations, Holidays, and Leave; (vi) Occupational Health and Safety; (vii) Labor Discipline; (viii) Special Sanctions; and (ix) Procedure for Applying Sanctions.

As mentioned, CRN does not have an Internal Labor Regulation, wherefore it shall adopt and modify/adapt CCN's Internal Labor Regulations for protecting the workforce to fit its operations and incorporate a Training Program to be implemented and disseminated to all employees (Action 2.6 of the ESAP).

4.2.c Occupational Health and Safety

At CCN, OHS management is performed by the Quality, Safety, and Sustainability Management through the Department of Occupational Health and Safety. Consistent with the data analysis and in keeping with Occupational Health and Safety legislation^[12] and the international standard OHSAS 18001:2007,^[13] both CCN and CRN comply with and have: (i) health and safety (H&S) personnel; (ii) risk assessments, risk maps, and intervention plans; (iii) an H&S license; (iv) an Emergency Plan approved by the Fire Department; (v) all workers registered with the Social Security system of the Nicaraguan Institute of Social Security (INSS, for its acronym in Spanish); (vi) training for workers and for emergency brigades; (vii) performance of medical exams and collection of statistics on occupational accidents and diseases; (viii) a duly constituted Joint Commission on Occupational Health and Safety; and other provisions of Law No. 618.

In this sense, both companies are regularly audited by the MITRAB and the Occupational Health and Safety Inspectorate, which have not recorded any negative findings at the time of the writing of this report.

Cooling systems

During the inspection visit to the CCN Plant, the use of cooling units that utilize ammonia (NH₃) as the cooling agent (refrigerant R717)^[14] was observed. CCN has procedures for the O&M of ammonia-based cooling equipment (ISC E05.23.002); it is aware of the health risks posed by ammonia exposure and has its own use and storage safety and inspection procedures (FSC E05.23.002.01^[15] and FSC E05.23.002.02^[16]) and it has PPE distribution maps in case of emergency (e.g. hazmat suits and self-contained breathing apparatus - SCBA). However, to achieve compliance with PS-2, these procedures must be aligned with applicable international standards, such as those of the International Institute of Ammonia Refrigeration (IIAR). In this regard, CCN shall implement a Safety Plan for Comprehensive Ammonia Management to ensure that ammonia safety and management complies with the country's safety regulations, the general guidelines of the World Bank Group's General Guidelines on Environment, Health and Safety (EHS Guidelines of the WBG) and the IIAR (Action 2.7 of the ESAP). This Safety Plan should include training, scheduled drills, and a proactive and regular communication plan for all employees and contractors, in coordination with each country's emergency response authorities and the involvement of communities with a high probability of being affected.

4.2.c Workers Engaged by Third Parties

All aspects related to labor and working conditions at CCN are managed by the Human Resources Management, with support from the Occupational Safety Department, as appropriate. CCN has a Policy for the Employment and Provision of Services of Workers Engaged by Third Parties that is based on compliance with the Labor Code and the international conventions of the ILO.

CRN shall adopt and modify/adapt CCN's Policy for the Employment and Provision of Services of Workers Engaged by Third Parties to fit its operations and incorporate a Training Program for the purpose of implementing such Policy and disseminating it to all its employees (Action 2.8 of the ESAP).

4.2.e Supply Chain

Based on data on the primary supply chain of recyclable/recoverable materials and the risks associated with the possible occurrence of child labor or forced labor, CRN shall implement a Primary Supply Chain Regulation Program to: (i) control and prevent the risk or occurrence of child labor or forced labor, in observance of legislation and international conventions to which Nicaragua is a signatory;[\[17\]](#) and (ii) ensure that the principal suppliers in the supply chain take measures to prevent or correct situations that endanger the lives of workers owing to the unsafe and unhealthy conditions involved in the collection of recyclable/recoverable materials (Action 2.9 of the ESAP).

4.3 Resource Efficiency and Pollution Prevention

4.3.a Resource Efficiency

Water Consumption

As for water for human consumption, both CCN and CRN have concessions from the National Water Bureau (ANA, for its acronym in Spanish) to exploit wells located in their respective facilities, as provided for by Law 620: General Law on National Waters.

At CCN, 821,092 m³ of water were extracted in 2018 from the four concession wells. It should be noted, however, that through a comprehensive water management program that controls consumption through the "Water Consumption" indicator, CCN became the first Water Neutral company in Nicaragua in 2015, reducing water consumption in all its operations, mitigating wastewater generation by treating effluents, and compensating through the Payment for Water-Related Ecosystem Services Program, developed with the environmental NGO FUNDENIC-SOS.[\[18\]](#)

In the case of CRN, as it is a dry operation, the water demand consists of domestic use (cleaning and human consumption) and is estimated at 2,500 m³/month, which is equivalent to 30,000 m³/year.

Energy

In 2018, CCN's energy consumption was 283,204 Gigajoules (GJ), 61% for industrial and facility use, and 39% for the vehicle fleet and mobility. Of the industrial consumption, 10% is generated by renewable sources (61% by Biogas and 39% by photovoltaic solar power).

CRN obtains all its power from the mains. It has an average annual consumption of 35,000 GJ, in line with its industrial activity.

4.3.b Pollution Prevention

Waste

For liquid effluents control, CCN has a modern and efficient wastewater treatment system that biologically purifies the company's effluents. The results of the 24-hour wastewater monitoring conducted by Laboratorio Bengoechea on December 10, 2018, reveal compliance with the provisions of Decree 21-2017: Regulation that lays down the Provisions for Wastewater Discharge.

As part of the EMP, CCN is committed to being a Zero Industrial Waste company, which means that more than 99% of the waste generated must be recovered. According to the 2018 results, CCN recovered 97.9% of its waste, equivalent to 23,918 tons, which means that only 2.1% was disposed of in a sanitary or safety landfill. This waste consisted of hydrocarbon yarns, used filters, batteries, burnt oils, polluted sand, and laboratory and clinical waste (biological risk). At CCN, solid waste management is done through the 3R methodology, which involves reducing or not generating waste, reusing applicable waste, and recycling what can no longer be reused.

CCN does not transport hazardous or non-hazardous solid waste outside its facilities. This waste is managed by companies certified by the MARENA as provided for in the NTON 05-014-02 and NTON 05-015-02 standards.

The commissioning of CRN at the end of September 2018 allowed CCN to increase post-consumption waste collection from 3.7% to 30.4%, with the exception of glass.

Hazardous Materials Management

Due to the nature of the operation and in fulfillment of standard NTON 05 015-02, CCN has recourse to an authorized manager for the management of its hazardous waste, which is required to have the corresponding license/approval issued by the MARENA. For this purpose, it employs the services of the company Gandara García Silva, S.A. (SERTRASA), for the environmental management (collection, transportation, and treatment) of used lubricant oils.

CRN does not generate hazardous waste, unless an incident (spill or leak) with any of its equipment were to occur, in which case the Emergency Plan would be applied and the services of an authorized waste manager would be requested for its removal and disposal, in keeping with NTON 05 015-02.

4.4 Community, Health, Safety and Security

4.4.a Infrastructure and Equipment Design and Safety

Both CCN's and CRN's new infrastructure expansions and growth shall be designed and built by competent and renowned contractors, experienced in the construction and operation of this type of works that use best international practices recommended by the industry. They are expected to comply with all applicable national and international construction and safety guidelines, standards, and codes.

One aspect that could adversely impact the safety of communities, however, especially for CRN operations, is the increased traffic of freight vehicles on nearby roads during the construction and operation phases. This is an issue that requires consultation with the local and/or regional transit authorities in relation to road and traffic capacity, timing and road safety measures such as signage, speed controls, etc. CRN will therefore develop a Road Safety Management Plan specific to its industrial complex in Managua, which will include measures to mitigate possible impacts on stakeholder communities, especially during the construction phase of its infrastructure expansion and future growth, but also including vehicle composition and O&M in its analysis (Action 4.1 of the ESAP).

4.4.b Security Personnel

During the inspection visit, it was found that, for the most part, there is security personnel present at CRN's facilities (mainly at accesses or customs). CRN will therefore provide a copy of the contract between such business unit and the security company or companies, in order to verify, among others, that conditions have been included that allow CRN to: (i) conduct reasonable investigations

to ensure that security personnel do not have a criminal record and have not been involved in cases of abuse in the past; (ii) verify details of necessary training in relation to the use of force; (iii) verify restrictions on the use of firearms; and (iv) identify details of environmental and social awareness training, including issues of respect for human rights (Action 4.2 of the ESAP).

4.5 Land Acquisition and Involuntary Resettlement

The Project will be developed on owned lands and does not involve involuntary resettlement.

4.6 Biodiversity Conservation and Natural Habitats

The Project will be developed on previously intervened own land (for mixed and industrial use) and land in disuse (both in CCN and CRN facilities) with regenerative vegetation (mainly grass) of little ecological value.

4.7 Indigenous Peoples

The Project is developed within the city of Managua, where no indigenous peoples exist in the Project development area.

4.8 Cultural Heritage

4.8.a Chance Find Procedures

Based on the recommendations of the Nicaraguan Institute of Culture (INC, for its acronym in Spanish) and the Directorate of Cultural Heritage, and as part of the environmental permits required to execute any additional Project-related work that requires earthworks and/or earthmoving, CCN and/or CRN shall develop a Chance Find Procedure^[19] (Action 8.1 of the ESAP) in keeping with the provisions of PS-8, which will be applied, as its name indicates, in the event of archaeological or paleontological chance finds; in addition to complying with the other technical provisions of the Directorate of Cultural Heritage.

5. Local Access of Project Documentation

CCN provides its information on its main website: www.ccn.com.ni and CRN provides its information through social media (@CRNicaraguaSA) at: <https://www.facebook.com/CRNicaraguaSA/>

6. Environmental and Social Action Plan

A summary of the Environmental and Social Action Plan (ESAP) can be found in [Annex 1](#).

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 requestinformation@idbinvest.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.

[1] Km. 6.5 - North Highway; 600 meters to the Lake.

[2]
<https://www.unglobalcompact.org/what-is-gc/participants/35361-Compania-Cervecera-de-Nicaragua#cop>

[3] Law No. 217 - General Law on the Environment and Natural Resources; OG No. 105 of June 6, 1996.

[4] Environmental and Social Action Plan (ESAP); see Section 6.

[5] Decree No. 45-94, Regulation on Environmental Impact Assessments and Permits; OG No. 203 of October 31, 1994.

[6] Administrative Resolution No. MGA-PGA-A11-05-17 of June 9, 2017 and its Amendment, Administrative Resolution No. MGA-PGA-A11-05-17M, of September 12, 2017.

[7] NTON 05-014-01; Environmental Technical Standard for the Management, Treatment and Final Disposal of Non-Hazardous Solid Waste.

[8] NTON 05 015-02; Technical Standard for the Management and Disposal of Hazardous Solid Waste.

[9] NTON 05-012-02; Nicaraguan Mandatory Technical Standard for Air Quality.

[10] Nicaraguan Mandatory Technical Standard for Fire Protection - NTON 22 001-04.

[11] Nicaraguan Mandatory Technical Standard for Emergency Plans - NTON 22 003-10.

[12] Art. 82, subsection 4 of the Political Constitution; Title V, Chapter I of Law No. 185, Labor Code; Law No. 618 General Law on Occupational Health and Safety and its Regulations.

[13] OHSAS 18001:2007: Occupational Health and Safety Management System.

[14] Anhydrous ammonia is used incessantly in the refrigeration industry because of its high energy conversion efficiency and low cost.

[15] FSC E05.23.002.01 "*Check List Inspección Sistema de Refrigeración Industrial*" (Industrial Cooling System Inspection Checklist).

[16] FSC E05.23.002.02 "*Inspección de condiciones básicas de seguridad en el sistema de*

amoniaco" (Inspection of Basic Safety Conditions of the Ammonia System).

[17] Art. 84 of the Political Constitution of the Republic of Nicaragua; Convention on the Rights of the Child (Art. No. 61 of the Political Constitution); ILO Convention 138; Reform Act 474 to Title VI, Book One of the Labor Code; Ministerial Agreement JCHG-08-06-10 on the prohibition of hazardous jobs for teenagers and a list of hazardous jobs.

[18] Nicaraguan Foundation for Sustainable Development.

[19] A chance find procedure is a Project-specific procedure that describes the measures to be taken in the event of finding previously unknown cultural heritage.