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

ZZ Glass Inc., Caribbean Glass Industry SA and Parque Caribbean Glass SA (collectively, ZZ Glass, the Company or the Borrower) are Special Purpose Vehicles (SPVs) created for the development, construction and reactivation (putting back into operation) of an existing, decommissioned glass bottle production plant located in the Pedro Brand Municipality in the Dominican Republic (DR) with an estimated installed capacity of 72,000 tons (MT) of glass per annum, to supply the soft drink production industry of DR and certain countries in the Caribbean (the Project).

The scope of IDB Invest's environmental and social review during the evaluation of ZZ Glass included the analysis of the Project's environmental and sanitary permits, meetings, and conference calls with the Borrower's representatives. In addition, on July 4 and 5, 2019 IDB Invest's environmental and social specialist conducted an environmental and social due diligence (ESDD) visit in the Dominican Republic, which included the following activities: (i) meeting with the Borrower's staff; (ii) inspection visit to the old factory and its surrounding areas of influence; and (iii) informal “spot” interviews with workers engaged by third parties. At the end of this ESDD visit, documents associated with manuals, procedures, licenses and permits, and operating reports, among others, were reviewed.

2. Environmental and Social Categorization and Rationale

This is a Category B Project under the IDB Invest Environmental and Social Sustainability Policy, since its environmental and social (E&S) risks and impacts are generally expected to be reversible and mitigable through available measures and existing technologies.

The possible E&S risks and impacts related to the Project construction activities (see Section 1) will be: (I) hazardous and non-hazardous waste generation; (ii) pollutant air emissions (mainly combustion gases from construction machinery and equipment); (iii) wastewater generation; (iv) noise pollution; (v) plant removal; (vi) earthworks; (vii) ground vibrations; (viii) risks to the occupational health and safety of construction workers, and (ix) community health, safety, and security concerns related to increased vehicular traffic. The E&S risks and impacts during the operation and maintenance (O&M) stage mainly relate to: (i) workers' health and safety; (ii) generation of solid (hazardous and non-hazardous) and liquid waste (mainly domestic wastewater), (iii) air emissions (mainly combustion gases from glass smelting furnaces and, to a lesser extent, the vehicles that transport the goods) and noise and vibration; and (iv) use of resources, such as energy and water sources (municipal public utility system).

It should be noted that in addition to the construction and O&M stages, there are also prior Project pre-construction or refurbishment activities, such as: cleaning and maintenance activities; repair of roofs, walls, and windows; mechanical testing of structures (columns, beams, storage tanks, etc.) and floors; etc., which by their nature do not present significant environmental, social, or occupational health and safety (OHS) impacts.

Finally, given the location of the Project, natural disasters, such as earthquakes, fires, floods and hurricanes, pose a very low to low risk, both in terms of damage to the physical infrastructure of the factory and to workers and possible loss of business.

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

- PS 1: Assessment and Management of Environmental and Social Risks and Impacts
3. Environmental and Social Context

The Project consists of the development, construction, and reactivation of an existing decommissioned glass bottle production plant (brownfield), which started operations in 1998 and suspended them in 2010 for reasons beyond market conditions or the company's performance.

The factory is located on the Duarte highway, the main roadway connecting the country's two main cities (Santo Domingo and Santiago de los Caballeros), in the Municipality of Pedro Brand, Province of Santo Domingo, in the Dominican Republic.

The old factory had 2 smelters with an installed capacity of 140,000 MT of glass per annum. The Project proposes the operation of a single smelting furnace at 82% of its nominal capacity, to meet the requirement of approximately 56,500 MT of glass production contractually committed to a local company.

The production process consists of the following elements/equipment: (i) the smelter responsible for producing the heat necessary to melt the raw materials in the glass finish; (ii) the molding machine, where the bottles or containers are formed; (iii) the tempering machine, which regulates the temperature of the glass in its bottle or container form; (iv) the inspection machine, where quality control is carried out; and (v) the packaging machine, where the products are finally packaged.

In addition to the elements/equipment, the inputs for glass production are: (i) Sand, which provides color, transparency and strength; (ii) Soda ash (Na2CO3), used in the formation of glass; (iii) Limestone (CaCO3), which increases durability and chemical resistance; (iv) Aluminum, used to provide hardness to glass; (v) Gypsum (CaSO4 2H2O), as the main source of sulfate; (vi) Chromite, which is used to provide a green color; glass remnants; selenium, used for transparent bottles; and carbon, used to make glass. Of these inputs, soda ash, limestone, and gypsum are considered to require special handling because of their risk to people's health (HMIS[1] Health Code, from 1 to 2).

For the Project execution, ZZ Glass must process and obtain the following principal permits/approvals, according to the Project stage: i) Construction Stage: No objection to land use by the Urban Planning Directorate of the Pedro Brand Mayor's Office; addendum to the Construction Permit by the Ministry of Public Works and Communications; revision of drawings by the Fire Department (as applicable, e.g.: Electrical Drawings, Fire Protection Systems Drawing, Fire Detection and Alarm System Drawings, etc.); Environmental Permit issued by the Ministry of the Environment and Natural Resources; renewal of the contract for the supply of water from the municipal network; and ii) Operation Stage: Certificate of compliance with the Occupational Health and Safety Program (Regulation No. 522-06) authorized by the General Directorate of Hygiene and Industrial Safety of the Ministry of Labor; Sanitary Registry of the Ministry of Public Health (MSP, for its acronym in Spanish); among others.

4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures
4.1. Assessment and Management of Environmental and Social Risk and Impact

4.1.a. E&S Assessment and Management System

Based on the analysis of the data provided, to comply with PS-1, ZZ Glass will develop a specific Environmental and Social Management System (ESMS) based on its operations. To this end, it will develop an ESMS that includes: (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 (contractors and subcontractors); (iii) internal procedures to ensure compliance with the Environmental Management Plan (EMAP); (iv) organizational capacity and competency, including the definition of roles and allocation of responsibilities for the implementation of said ESMS; (v) emergency preparedness and response protocols (see Section 4.1.f); (vi) stakeholder engagement methods or planning (and ongoing) (see Section 4.1.h); (vii) external communication and grievance mechanism (see Section 4.1.i); (viii) protocols for the disclosure of information, decision making and training to communities; (ix) protocols for the evaluation and continuous improvement of the ESMS; and (x) regular audits and inspections of E&S and OHS requirements under Law No. 64-00, General Law on the Environment and Natural Resources of the Dominican Republic (Action 1.1 of the ESAP[2]).

4.1.b. Policy

To comply with PS-1, ZZ Glass will develop an overarching E&S and OHS policy that specifies: (i) the person within the organization who will ensure compliance with and be responsible for the execution of this comprehensive policy and how this policy will be communicated to all levels of the organization; and (ii) the creation of a mechanism to measure and communicate ongoing improvements in its implementation (Action 1.2 of the ESAP).

4.1.c. Identification of Risks and Impacts

For any new Project construction and/or refurbishment, in addition to verifying compliance with environmental impact regulations (see Section 3), an identification and assessment of environmental and social risks and impacts will be carried out. Based on the above, regardless of the mechanism to comply with the Dominican Republic’s Environmental Law in the matter of permits and environmental impact assessments (Law 64-00 and Resolution No. E.03. 13-2014), ZZ Glass, in addition to identifying and assessing direct and indirect as well as cumulative and synergistic E&S and OHS risks and impacts for each Project stage, will analyze such impacts and risks, taking into account cumulative impacts, greenhouse gas emissions (mainly during O&M), relevant risks associated with natural hazards and climate change, and adaptation opportunities (Action 1.3 of the ESAP).

Finally, given that the execution and operation of the Project is dynamic, ZZ Glass, in keeping with PS-1, will continuously update the E&S and OHS risk matrix for each phase of the Project (design, pre-construction/refurbishment, construction/expansion, 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 Programs

As part of the Environmental Impact Assessment (EIA), ZZ Glass will develop an Environmental Management and Adequacy Program (EMAP) based on the environmental impact assessment regulation and specific to the site of implementation, with mitigation and compensation measures to address each major environmental impact, both positive and negative, during all phases of the
Project (Action 1.4 of the ESAP). For the Construction phase, the EMAP 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 pollutant gas emissions by construction machinery and equipment; disturbance of the environment due to the increased generation of dust and noise; control of liquid effluents, both runoff 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; E&S and OHS training for construction managers and workers; measures for inter-institutional coordination; and measures to ensure safe and hygienic-sanitary conditions for workers during construction. Likewise, the EMAP for the O&M phase will include the following measures: (i) an Environmental Monitoring and Vigilance Program, especially for pollutant gas emissions from fixed Project sources (smelters, boilers, power generators, etc.); (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 measures for the special handling of hazardous waste, such as oils, greases, paints, solvents, medicines (if there is a health center or service), disinfectants, or any other product that requires special management used during the Project’s O&M activities under local environmental and health regulations; and (iii) a Workplace Health and Safety Program (see Section 4.2.c).

4.1.e. Organizational Capacity and Competency

ZZ Glass lacks a dedicated E&S and OHS organizational structure to monitor and implement the regulations that it must comply with in these matters in order to minimize E&S impacts and risks and occupational accidents in the company. In this regard, in order to comply with PS-1, ZZ Glass will: (i) define the E&S policy(ies) and appoint an E&S focal point within its organizational structure; as well as define the functions, responsibilities and powers to implement the ESMS (e.g., plan, implement and monitor all required E&S actions of the EMP) and ensure adequate human and financial resources in the ESMS. Likewise, ZZ Glass will 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 (Action 1.5 of the ESAP). Furthermore, in compliance with the Occupational Health and Safety Regulations (Decree No. 522-06 and Resolution No. 04/2007), ZZ Glass will have a Joint Committee on Occupational Health and Safety (Action 1.5 of the ESAP).

4.1.f. Emergency Preparedness and Response

ZZ Glass, in keeping with the Law on Risk Management (Law No. 147-02) and the safety principles of the Occupational Health and Safety Regulations (Decree No. 522-06), will develop an Emergency Response Plan (ERP) separated in stages (pre-construction/refurbishment, construction and O&M) and specific to the Project (Action 1.6 of the ESAP), with a set of specific pre-established procedures for coordination, alert, mobilization and response in the event or imminence of a particular event, such as: (i) natural hazards such as earthquakes, hurricanes and/or tropical storms, floods, thunderstorms, etc.; (ii) human conflicts (e.g., civil and war disruptions); and (iii) technological hazards from fires, explosions, fuel spills, and accidents befalling workers and suppliers.

This ERP will address the following aspects: (i) specific emergency response procedures; (ii) trained emergency response teams; (iii) emergency contacts and communication systems/protocols; (iv) procedures for interaction with local and regional emergency and health authorities; (v) permanent emergency equipment and facilities (e.g., first aid stations, extinguishers/hoses, sprinkler systems); (vi) protocols for fire trucks, ambulances and other emergency vehicle services; (vii) evacuation routes and meeting points; (viii) training exercises such as annual drills, or more frequently if
necessary, or actual events in which ZZ Glass will include nearby properties and other key stakeholders to familiarize them with proper procedures in the event of an emergency.

In addition, to comply with PS-1, each the Project ERP will contain 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

ZZ is responsible for ensuring the implementation of the follow-up, monitoring, and control plans described in the EMAP of the Project EIA (see Section 4.1.d). ZZ will therefore develop a compliance matrix with its corresponding key performance indicators (KPIs) to measure the effectiveness of the EMAP and the fulfillment of the Project’s legal and contractual obligations during the construction and O&M phases (Action 1.7 of the ESAP). This compliance matrix will include: (i) the competent Authority granting the authorization or issuing the permit; (ii) issue and effective dates; (iii) the person within ZZ Glass who is responsible for follow-up/compliance; and (iv) communication and future compliance procedures.

In addition, to satisfy the requirements of PS-1, ZZ Glass will prepare, through an internal audit or an external expert endorsed by the National Environmental Authority (external audit), a consolidated annual report on the compliance status of all environmental, social, and OHS policies and measures applicable to the Project works, including the progress of ESMS actions with regard to the defined KPIs, as well as its compliance status with the IDB Invest E&S Sustainability Policy, the Dominican Republic’s laws on E&S and OHS, and the IFC Performance Standards. (Action 1.8 of the ESAP).

4.1.h. Stakeholder Engagement

Disclosure of Information

In order to fully comply with the provisions of PS-1, ZZ Glass will update its Stakeholder Engagement Management Plan to include the following: (i) updated identification of all stakeholders, including the local authorities and surrounding communities and neighbors (within a 500 m radius of the Project); (ii) differentiated measures to enable the effective engagement of disadvantaged or vulnerable groups; (iii) a mechanism to ensure that community representatives accurately represent the views of the affected communities; (iv) details on how information is disclosed to stakeholders; (v) details on the stakeholder engagement process in these communities and how they can access the grievance mechanism (see Section 4.1.i); (vi) regular reporting on the company's E&S performance to stakeholders and the public at large; and (vii) establish mechanisms for implementing and disclosing the updated procedure to all its staff as part of a Training Program (Action 1.9 of the ESAP).

Likewise, ZZ Glass will define a Community Relations Procedure as part of the Stakeholder Engagement Management Plan, which sets out effective strategies for communicating and maintaining good relations with the population in the area of influence of the Project and with stakeholders. This procedure will identify the work team responsible for its implementation (e.g., the Social Management manager and a team of social promoters) and define the protocols for the following activities: (i) interviews with authorities and stakeholder representatives; (ii) stakeholder briefings; (iii) media and social networks management; and (iv) guided tours of the glass bottle production facility (Action 1.9 of the ESAP).
Informed Consultation and Participation

In conformity with the Environmental Law of the Dominican Republic on permits and environmental impact assessments (Law 64-00 and Resolution No. 13-2014) and the Public Consultation Regulations and Procedures in the Environmental Assessment Process (Resolution No. 014-2014), ZZ Glass will conduct a public hearing in the area of influence of the Project (Action 1.10 of the ESAP), whose announcement and consultation process will fulfill the requirements set out in PS-1, namely: (i) to obtain the views of both men and women, if necessary through separate engagement or fora, and (ii) to reflect the different concerns and priorities of men and women about the Project's impacts, mitigation mechanisms, and benefits, where appropriate; (iii) to document the process, especially the measures taken to avoid or minimize risks and adverse impacts on affected and/or stakeholder communities; and (iv) to inform those affected of how their concerns have been addressed.

4.1.i. External Communication and Grievance Mechanisms

As for the reception of external grievances and complaints from clients, ZZ Glass' website only shows one point of contact. However, under the requirements of PS-1, ZZ Glass will 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 the closure of the complaint; and (iv) any adjustments or improvements to the EMAP, in terms of communication and dissemination of information. ZZ Glass will therefore provide the following:

- An External Grievance Mechanism focused on the key stakeholders, including the local authorities, and on affected communities and/or neighbors or those with any stake in the indirect area of influence of the Project (approximately 250 m from the Project boundaries) for the Project pre-construction/refurbishing and construction; and copies of evidence of its implementation. Such grievance mechanism will include details of how these grievances or complaints are recorded, investigated/evaluated, and the respective follow-up and closure/resolution process (Action 1.11 of the ESAP).
- A similar External Grievance Mechanism during the Project O&M (Action 1.12 of the ESAP), that incorporates the experiences and lessons learned in the construction phase.

4.1.j Ongoing Reporting to Affected Communities

ZZ Glass, through its Stakeholder Engagement Management Plan (see Section 4.1.h), will furnish regular reports on the company's E&S performance to the communities and the general public.

4.2. Labor and Working Conditions

4.2.a. Working Conditions and Management of Worker Relationships

Human Resources Policies and Procedures

According to the information provided, the Project intends to create 300 direct jobs during its construction and approximately 150 direct jobs during its operation, which has a significant social and economic impact on local communities.

Therefore, in order to comply with PS-2, ZZ Glass will develop a Human Resources Policy and its procedures, in conformity with the Labor Code of the Dominican Republic. Such policy and its procedures will include, among other things, 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, in addition to setting out a mechanism to ensure that its contractors and their subcontractors also comply with said human resources policy and procedures (Action 2.1 of the ESAP).

Likewise, as part of the elements to be developed by the Human Resources area, ZZ Glass will prepare a Code of Conduct (or Code of Ethics) for all its employees, intended to define coexistence measures between collaborators and for any person entering the factory, the rules of conduct, both inside and outside the facilities, and the sanctions in the event of non-compliance (Action 2.2 of the ESAP).

**Working Conditions and Terms of Employment**

In addition to compliance with the Labor Code of the Dominican Republic (Law No. 16-92), the Regulations for the application of the Labor Code (Reg. No. 258/93), Occupational Health and Safety Regulations (Decree No. 522-06) and its complementary norms (Decrees of the Executive Power, Resolutions of the Secretary of State for Labor and International Agreements), to comply with PS-2, ZZ Glass will have an Internal Labor Regulation (ILR) that will include the following procedures: (i) employment procedure and evidence of its implementation for workers 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 own employees and the procedures adopted by contractors for their workers; and (iii) procedures for managing and monitoring the performance of workers engaged by third parties (Action 2.3 of the ESAP).

The ILR will contain at least the following sections: (i) General Provisions; (ii) Obligations and Law in general; (iii) Employment Policy; (iv) Working Conditions; (v) Vacations, Holidays, and Leaves of Absence; (vi) Occupational Health and Safety; (vii) Labor Discipline; (viii) Special Sanctions; and (ix) Application Procedure for Sanctions. This also entails the establishment of an ILR Training and Disclosure Program, which will be implemented and disseminated to all ZZ Glass employees and to workers engaged by third parties (contractors and subcontractors) (Action 2.3 of the ESAP).

**Workers' Organizations**

The Dominican Republic is a signatory to a number of international conventions and treaties of the 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, ZZ Glass, through its Internal Labor Regulations, complies with the Labor Code of the Dominican Republic (Law 16-92) and its Regulations (Decree No. 258-93), which stipulate employers’ obligations and prohibitions with regard to trade union rights and non-interference in the constitution and operation of unions (Art. 47 and Book Five of the Labor Code).

**Non-discrimination and Equal Opportunity**

Refer to the requirements set out in Section 4.2.a on Human Resources policies and procedures. In addition, the Dominican Republic is signatory to several ILO international conventions and treaties relating to workers' rights, including Convention No. 100 concerning Equal Remuneration for Men and Women Workers for Work of Equal Value and Convention No. 111 concerning Discrimination in Respect of Employment and Occupation.

**Retrenchment**

Refer to the requirements in Section 4.2.b on working conditions and employment terms and
conditions.

Grievance Mechanism

In accordance with the provisions of PS-2, ZZ Glass is required to document internal communications/grievances from its employees, contractors and subcontractors, detailing: (i) how the information is received; (ii) how these grievances are evaluated; and (iii) how responses are provided and monitored, concluding with the closure of the grievance. In this regard, ZZ Glass will provide the following:

- An Internal Grievance Mechanism (for direct employees, contractors and subcontractors) for the pre-construction/refurbishment and construction phases of the Project; and copies of evidence of its implementation. This grievance mechanism will include details of how these grievances or complaints are recorded, investigated/evaluated, and the respective follow-up and closure/resolution process (Action 2.4 of the ESAP).
- A similar Internal Grievance Mechanism during the Project O&M (Action 2.5 of the ESAP), that incorporates the experiences and lessons learned in the construction phase.

4.2.b. Protecting the Workforce

The Dominican Republic is signatory to several ILO international conventions and treaties relating to workers’ rights, including Convention 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, both the Labor Code (Law No. 16-92) and the Regulations for the application of the Labor Code (Reg. No. 258/93) regulate labor relations by prescribing the minimum rights and duties of employers and workers; as well as equality and equity in the enjoyment of human, civil, political, economic, social, and cultural rights between women and men (non-discrimination and non-discrimination in employment). In this sense, ZZ Glass will develop its Internal Labor Regulation (see Section 4.2.a) in compliance with the labor law of the Dominican Republic and PS-2.

4.2.c. Occupational Health and Safety

In compliance with the Occupational Health and Safety Regulation (Decree No. 522-06 and Resolution No. 04/2007), ZZ Glass will have an Occupational Health and Safety Program (OHSP). Additionally, to fulfill the requirements of PS-2, this OHSP will include: (i) the identification of possible OHS risks for workers according to the work they perform; (ii) risk assessment, risk map and intervention plan; (iii) details of the preventive and protective measures implemented, worker training and daily safety briefings during the site visit; (iv) imparting specific training for workers and emergency brigades; (v) performing medical examinations and collecting statistics on accidents and occupational diseases; and (vi) a copy of the reports prepared in the event of workplace accidents or incidents (Action 2.6 of the ESAP).

Likewise, the OHSP will contain a procedure and mechanism for notifying emergency response agencies, the local authorities, and the Bank of fatalities or major accidents; as well as an accident Root Cause Analysis procedure to ensure the implementation of corrective actions to prevent future accidents (Action 2.7 of the ESAP).

4.2.d. Workers Engaged by Third Parties

To comply with PS-2, ZZ Glass will develop a Policy for the Employment and Provision of Services of
Workers Engaged by Third Parties that complies with the Labor Code and the international conventions of the ILO and that allows it to: i) ensure that contractors that employ these workers are legitimate companies of proven integrity that have implemented an appropriate E&S Management System that allows them to operate in a manner consistent with the provisions of PS-2; ii) set forth policies and procedures to manage and review the performance of such third-party employers through commercially viable means incorporated into the text of the contractual agreements; and finally, iii) ensure that workers engaged by third parties have access to the grievance mechanism, either that of the Contractor or that of the Promoter itself (Action 2.8 of the ESAP). ZZ Glass will also be required to develop a training program for this Hiring Policy, to be implemented and disseminated to all ZZ Glass personnel who contract outsourced services (Action 2.8 of the ESAP).

4.2.e. Supply Chain

ZZ Glass has a list of requirements for new and existing suppliers; however, based on information on the main glass-making materials supply chain (see Section 3) and the risks associated with the production, handling, storage, and transportation of hazardous products (soda ash, limestone and gypsum), ZZ Glass will develop a Main Supply Chain Regulation Program to: (i) control and prevent risks or incidents of child or forced labor, in adherence to international legislation and agreements where to which the Dominican Republic is signatory; and (ii) ensure that the main suppliers of its supply chain are taking measures to prevent or correct situations that endanger the lives of workers due to unsafe conditions during the extraction, handling, storage, and/or transportation of hazardous products (Action 2.9 of the ESAP).

4.3. Resource Efficiency and Pollution Prevention

4.3.a. Resource Efficiency

Green Gases

Based on the industrial activity of the Project and in conformity with PS-3, ZZ Glass will develop a Greenhouse Gas Emission Prevention Program for the O&M phase of the Project (Action 3.1 of the ESAP), that defines and implements a specific procedure to estimate greenhouse gas (GHG) emissions from own or controlled facilities within the physical boundaries of the Project, as well as indirect emissions associated with energy production and off-site transportation of materials during both the construction and O&M phases; Additionally, ZZ Glass will: (i) prepare and implement an energy efficiency procedure or program (refer to the Section on Energy); and (ii) adopt an appropriate solid waste classification process to prevent the disposal of recyclable or reusable waste, thus reducing the transportation of these materials to landfills located near the Project area and GHG emissions at these landfills (refer to the Section on Solid waste).

Water Consumption

ZZ Glass will develop a Water Consumption Awareness and Reduction Program for the O&M phase of the Project (Action 3.2 of the ESAP). Said Program will implement the following overarching water-saving measures: i) monitoring of the monthly water consumption indicator; and ii) an operating procedure triggered by any variation/alteration in consumption, to verify and correct the cause, either by plugging leaks or replacing fittings.

Energy

As part of the Energy Efficiency Program proposed to reduce GHG emissions, ZZ Glass will: (i) identify measures to reduce to a minimum the use of fuels and electricity; (ii) identify measures for
the optimization and/or cogeneration of heat; (iii) analyze alternatives to utilize renewable and/or alternative energy sources; (iv) minimize the carbon footprint of the Project's operations; and (v) analyze and implement the following comprehensive energy saving measures: replacing low-efficiency air conditioning systems with high-efficiency equipment and ozone-friendly refrigerants (e.g., replacing the use of R22 as a refrigerant), installing LED lights in operating, storage, and parking areas, automating processes through programmable logistics controls, applying inverter technology to maximize efficiency in the equipment with the highest demand, such as industrial cooling and air conditioning systems, and using insulating and thermo-acoustic materials to reduce heat transfer and eliminate noise (Action 3.3 of the ESAP).

4.3.b. Pollution Prevention

Effluents

For the control of liquid effluents, ZZ Glass will develop an Effluent Management Program (Action 3.4 of the ESAP), that includes the evaluation, control, and monitoring of the wastewater treatment system (grease trap, sand traps, etc.), before discharging its water into the municipal sewer system operated by the Corporación del Acueducto y Alcantarillado de Santo Domingo (CAASD), in keeping with the provisions of the Environmental Standard on the Control of Discharges to Surface Waters, Sanitary Sewerage, and Coastal Waters (2012).

Solid Waste

As part of complying with ND-3 and to improve its environmental performance, ZZ Glass will establish a Solid Waste Management Program (Action 3.5 of the ESAP), to classify its solid waste into three components: 1) losses, which correspond to damaged products that are thrown away; 2) donations, which are those products that are not suitable for sale, but are for consumption, and that are delivered free of charge to different foundations; and 3) recyclables, i.e. cardboard, paper, plastics, wood, metals, and organic waste, which are removed by a duly authorized/registered company under a service contract.

ZZ Glass will not transport its non-hazardous (domestic) solid waste outside its facilities. This will be managed by the services of the city council or companies authorized to offer this service, as provided for in the Standard for the Environmental Management of Non-Hazardous Solid Waste (NA-RS-001-03).

Noise, Vibration, and Air Quality

Noise, vibrations, and air quality levels will be monitored as part of the EMAP throughout the pre-construction/refurbishment, construction, and O&M phases. In parallel, as part of its Air Quality, Noise, and Vibration Monitoring Program, ZZ Glass (Action 3.6 of the ESAP), will begin measuring/monitoring prior to the construction phase in order to establish the Baseline and then, during the construction and O&M phases, will repeat such measuring/monitoring every semester (or with the frequency proposed by the National Environmental Authority), for both environmental conditions and workplace conditions and worker exposure. The permissible parameters and thresholds for environmental condition measurements will be those set forth in the Environmental Standard for Air Quality and Emission Control (NA-AI-001-03), and for working conditions and worker exposures, the parameters proposed in the Occupational Health and Safety Regulations (Decree No. 522-06); however, for both cases, the parameters and measures included in the IFC Environmental, Health and Safety Guidelines for the manufacture of glass will be taken into account and the most stringent will be used.
Hazardous Materials Management

ZZ Glass will establish an Impact Prevention Program for the Management of Hazardous Materials (**Action 3.7 of the ESAP**). This program will contain key actions and/or mechanisms for the correct handling of hazardous materials or those requiring special handling, such as: fuels, oils, fats and paints, plaster, limestone, soda ash, among others. In addition, it will include criteria for locating the places where such hazardous materials will be handled and stored, and the procedures for their adequate storage, maximum permitted volumes, permits, safety signs, use of appropriate PPE, among other safety measures, as indicated in the Safety Data Sheets for each product. The storage place(s) of these hazardous materials will be insulated, water resistant, covered, contain a containment dam, have restricted access, be well ventilated and illuminated, etc., as set forth in the national OSH regulation.

Similarly to non-hazardous waste, ZZ Glass will not transport its hazardous solid waste outside its facilities. It will be managed by an authorized service provider, as set forth in the Regulations for the Management of Hazardous Chemical Substances and Waste.

4.4. Community Health, Safety and Security

4.4.a. Infrastructure and Equipment Design and Safety

The ZZ Glass Project will 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, which are expected to comply with the applicable national and international construction and safety guidelines, standards, and codes.

Fire Protection System

According to the Fire Safety and Protection Regulation (Decree No. 85-11, modified by Decree No. 364-16) of the Ministry of Public Works and Communications (MOPC, for its acronym in Spanish), the design of the Life and Fire Safety (L&FS) Systems or Facilities of the Project buildings and facilities will adhere to the international standards of the National Fire Protection Association (NFPA) and the Disability Act of the Dominican Republic (Law No. 5-13) and its Regulations (Decree No. 363-16) and/or the standards of the Americans with Disabilities Act 2010 (ADA) for accessible design (those universal standards that make access to the physical environment possible to a greater extent, in accordance with the conditions inherent to the Project). In this regard, ZZ Glass will provide certification from a qualified professional acceptable to IDB Invest, who will verify that the design of the Project’s fire protection facilities satisfies the L&FS requirements of the IFC General Environmental, Health, and Safety Guidelines and that said design is fully compliant with the international L&FS code and the laws of the Dominican Republic. (**Action 4.1 of the ESAP**). After construction, a qualified L&FS professional acceptable to IDB Invest will inspect the project and submit a certificate that the buildings and facilities considered in the Project are built in accordance with the previously approved L&FS design and that all L&FS devices were installed as designed and tested in accordance with international requirements (**Action 4.1 of the ESAP**).

Road Safety

One aspect that may have a negative impact on the safety of the surrounding communities is the increase in cargo vehicle traffic in the surrounding roads during the Project construction and operation phases. In this sense, consultation with the local and/or regional traffic authorities is required, in relation to road capacity and traffic, scheduling and road safety measures, such as signaling, speed controls, etc. Therefore, ZZ Glass will develop a Road Safety Management Plan
specific to the Project site (Action 4.2 of the ESAP), that will include vehicular composition as part of the analysis and define mitigation measures of possible impacts on the affected communities, especially during all phases of the Project (pre-construction/refurbishing, construction, and O&M).

4.4.b. Security Personnel

During the inspection visit, it was found that, in general, security personnel is usually present at ZZ Glass's facilities (mainly entry and exit points or customs). Therefore, ZZ Glass will provide a copy of the contract entered into by it and the security company or companies, in order to verify -among other aspects- that it includes clauses that allow ZZ Glass 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; (ii) verify details of necessary training on the use of force; (iii) verify restrictions on the use of firearms; and (iv) identify details of the environmental and social awareness training, including the subject of respect for human rights (Action 4.3 of the ESAP).

4.5. Land Acquisition and Involuntary Resettlement

The Project will be developed on owned land acquired through a private purchase agreement/contract, and does not involve any involuntary resettlement.

4.6. Biodiversity Conservation and Natural Habitats

The Project will be developed on owned, previously intervened (mixed use) land with regenerative vegetation (mainly grasses and/or individual trees or small groups of two to five trees, randomly scattered along the perimeter of the property) of little ecological value, or abandoned facilities (old facilities and/or storage areas).

4.7. Indigenous Peoples

The Project is located next to the Duarte Highway, the main highway that connects the city of Santo Domingo with the city of Santiago de los Caballeros. Likewise, the Project will be developed on already intervened lands, close to the Pedro Brand Community, where no indigenous peoples have been observed in the area of influence.

4.8. Cultural Heritage

4.8.a. Chance Find Procedures

Based on the recommendations of Law No. 318 on Cultural Heritage of the Nation (Art. 13) ZZ Glass will develop a Chance Find Procedure[3] (Action 8.1 of the ESAP) for the execution of any Project-related works requiring earthworks or earthmoving, in observance of the provisions of PS-8, which will be applied, as the name implies, in the event of archaeological or paleontological chance finds; in addition to complying with the remaining technical provisions dictated by Law No. 318 and the Ministry of Culture.

5. Local Access of Project Documentation

The company ZZ Glass will have an official (main) website to disclose information (see Section 4.1.j).

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

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