

Environmental and Social Review Summary (ESRS) PANTALEON – Guatemala

Original language of the document: English
Issuance date: August 2021

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

The Pantaleon Group began operations in 1849 along the southern coast of the Republic of Guatemala, and now operates under the governance of its holding companies, one of which is the Pantaleon Sugar Holdings Company Ltd. (Pantaleon), a Cayman Islands company. Pantaleon is dedicated, through its subsidiaries and affiliates, to the production of sugar, ethanol, and energy. It is currently the largest sugar producer in Central America. It has approximately 22,400 employees and operations in six countries (Guatemala, Nicaragua, Brazil, Mexico, Chile, and the United States). Pantaleon has an installed capacity of 76,000 metric tons of sugarcane milling per day. It produces 1.3 metric tons of sugar, 143,000 m³ of alcohol, and 703 gigawatt-hours (GWh) of electricity per year. Pantaleon’s three main lines of business in Guatemala represented 57% of the company’s revenues and 61% of the company’s Earnings Before Interest, Tax, Depreciation, and Amortization (EBITDA) in 2020. 82% of the company’s revenue was from sugar, 7% from alcohol, 7% from energy, and 4% from molasses. Pantaleón, Sociedad Anónima (Pantaleón, S.A.) is a Guatemalan company that cultivates and processes sugarcane in the Pantaleon Sugar Mill and factory, located in Escuintla, and also operates sugarcane farms in the Escuintla, Santa Rosa, and other nearby regions of Guatemala.

TPG Investments Limited (TPGI) is the holding company of Pantaleon, which is currently TPGI’s biggest portfolio investment. TPGI, through its respective subsidiaries and affiliates, also engages in real estate developments, being one of the main shopping malls operators and housing developers in the region, among other investments.

Pantaleón, S.A. and some of Pantaleon’s subsidiaries and/or affiliates are seeking funds from IDB Invest to finance: i) their fixed investment plans for the maintenance and improvement of industrial and agricultural efficiencies, including the implementation of green projects that improve their use of resources and the renovation of their sugarcane plantations; and ii) their working capital needs, including advances to sugarcane producers (the “Project”).

2. Environmental and Social Categorization and Rationale

The Project has been classified as a Category B operation according to IDB Invest’s Environmental and Social Sustainability Policy, since it will likely generate, among others, the following impacts: i) air emissions that may be compensated by the same operation’s emission withdrawals; ii) water consumption; iii) waste; iv) wastewater; v) noise; vi) potential community health and safety impacts; and vii) occupational health and safety impacts. These impacts are deemed to be of medium intensity and are generally limited to the Project sites, are largely reversible, and can be mitigated via measures that are readily available and feasible to implement in the context of the operation.

The Performance Standards (“PS”) triggered by the Project are: i) PS1: Assessment and Management of Environmental and Social Risks and Impacts; ii) PS2: Labor and Working Conditions; iii) PS3: Resource Efficiency and Pollution Prevention; and iv) PS4: Community Health, Safety and Security.

Since no land will be acquired as part of the Project (and therefore no involuntary resettlement is anticipated), no new areas will be developed that could impact natural habitat or cultural heritage, and no indigenous communities will be affected by the proposed activities, PS5: Land Acquisition and Involuntary Resettlement, PS6: Biodiversity Conservation, PS7: Indigenous Peoples, and PS8: Cultural Heritage have not been triggered.

3. Environmental and Social Context

3.1 General Characteristics of the Project’s Site

The Pantaleon Sugar Mill and the ethanol distillery, operated by Bio Etanol, Sociedad Anónima (Bio Etanol, S.A.), are located a few hundred meters from one another in Escuintla, Guatemala. The Pantaleon Sugar Mill has been in operation since 1849. It currently has 29,000 metric tons of daily milling capacity and produces 477,649 metric tons of sugar, 180,172 metric tons of molasses, and 291,336 megawatt-hours (MWh) of electricity per year. The neighboring ethanol distillery currently produces 76,706 m³ of alcohol per year.

The Escuintla region is characterized by small towns surrounded by agricultural fields. Some of the agricultural fields in the region are sugarcane farms owned by either Pantaleon, other sugar mills, or their suppliers. Other farms in the region grow banana and palm trees, among other crops. Pantaleón, S.A. has developed a relationship with 102 communities in the region. Of these, the company has formal agreements with 25. The Project’s principal stakeholders are these communities, municipal governmental agencies, and other companies operating in the region.

3.2 Contextual Risks

A contextual risk assessment performed by IDB Invest identified four peaceful protests, one arrest incident, and one incident of mob violence in Escuintla over the last year. The arrest incident involved the police rescuing immigrants hidden inside a vehicle container and the incident of mob violence involved guards at a prison being held hostage by prisoners until their release the next day. There were no fatalities in any of these incidents¹.

An ESG reputational risk assessment of the Pantaleon Group/Pantaleon Sugar Holdings yielded four total risk incidents. The most recent was an online article in May 2018 in which sugar producers were criticized for social and environmental impacts by communities, including indigenous groups, living in the Costa Sur region. Although Pantaleon, through its respective subsidiaries and/or affiliates, is referred to as a major sugar producer in the country, the specific claims were regarding another producer. The next most recent incident was from 2015 in which the sugar industry in Guatemala was criticized for labor practices, including long hours, insufficient water intake, and

¹ Armed Conflict Location Event Data (<https://acleddata.com>), accessed on August 23, 2021.

exposure to agrochemicals that led to an increased incidence of chronic kidney disease. The other two incidents were in 2013².

IDB Invest met with leaders of four local communities during a site visit in August 2021. One of the leaders mentioned that there has been a history of delinquency and arson in the region, but that such incidents have decreased in recent years due to increased coordination between community leaders, Pantaleón, S.A., and the municipal government. All four community leaders stated that Pantaleón, S.A. was the preferred employer for people living in their communities due to its employee benefits and social investment programs.

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

4.1 Assessment and Management of Environmental and Social Risks

4.1.a E&S Assessment and Management System

Pantaleón, S.A. has a Quality, Health and Safety, and Environmental (QHSE) Integrated Management System (IMS) that is certified to comply with the requirements of ISO 9001:2015 (*Sistema de Gestión de la Calidad*). The system is described in the company's QHSE Integrated Management System Manual (*Manual del Sistema Integrado de Gestión QHSE*). The system is composed of the following 17 elements grouped according to the Plan, Do, Check, Act model: i) policy; ii) objectives, goals, and programs; iii) QHSE risks; iv) legal requirements; v) competence, training, and awareness; vi) communications; vii) management of change; viii) QHSE operational control; ix) document control; x) supplier management; xi) incident investigation; xii) emergency preparedness and response; xiii) monitoring and measurement; xiv) internal audit; xv) QHSE performance; xvi) continuous improvement; and xvii) managerial review.

Pantaleon has a SharePoint site accessible to company employees that contains over 4000 documents that comprise the company's IMS. Documents are organized hierarchically into the following categories: i) macro policies; ii) manuals; iii) procedures; iv) instructions; v) general documents; and vi) forms. On the SharePoint, documents are organized in folders with the following topics, each of which has subfolders: i) commercial; ii) responsibility in the use of assets and resources; iii) compliance and legal; iv) talent; v) corporate relations; vi) responsible development; vii) control and accountability; and viii) technology and innovation.

Pantaleon also maintains a matrix to monitor its compliance with legal requirements. The matrix covers 15 applicable legal instruments, under which 744 commitments (*artículos*) are listed.

Pantaleón, S.A.'s IMS is well developed and appears to be adequate to manage the company's environmental and health and safety risks and impacts. The IMS, however, does not currently cover social issues. Pantaleón, S.A. will incorporate social elements into its IMS for the Project and update its IMS Manual accordingly.

² RepRisk ESG Risk Platform (<https://esriskplatform.reprisk.com>), accessed on August 23, 2021.

4.1.b Policy

Pantaleon has an Integrated Management Policy (*Política de Gestión Integral [Calidad, salud, seguridad y medio ambiente]*) that describes the principal objectives of its management system. The policy is composed of the following elements: i) responsible transformation; ii) culture promotion; iii) legal compliance; iv) promotion of safe, high-quality products; v) taking care of the environment; vi) promotion of an occupational health and safety culture; and vii) communication of commitments. The company has banners that promote the policy in common work areas at the Pantaleon Mill (*Ingenio Pantaleón*).

Pantaleon also has a Responsible Labor Conditions Policy (*Política de Condiciones Laborales Responsables [DDHH]*). This and the Integrated Management Policy comprise the company's policies for sustainable development. Pantaleon has additional policies on: i) commercial and business; ii) responsibility in the use of assets and resources; iii) compliance and legal; iv) talent; v) corporate relations; vi) control and accountability; and vii) technology and innovation.

4.1.c Identification of Risks and Impacts

4.1.c.i Direct and indirect impacts and risks

Pantaleón, S.A.'s Environmental License for the sugar factory³ was based on approval of an environmental and social impact assessment (ESIA)⁴ and is valid from September 30, 2017, to September 29, 2022. Bio Etanol, S.A.'s Environmental License for the ethanol distillery⁵ is also based on an ESIA conducted for its construction⁶ and another for its expansion⁷ and is valid from January 8, 2019, to January 7, 2024. In addition, Pantaleón, S.A. has Environmental Licenses for the sugarcane farms (*fincas*) it operates, in compliance with Guatemalan law⁸. To better identify and mitigate social risks, Pantaleón, S.A. also hired a consultant to conduct a social impact study five years ago.

In addition to environmental impact assessments, Pantaleon maintains and regularly updates risk matrices for its activities. An occupational health and safety risk matrix, known internally as a Risk Panorama (*Panorama de Riesgos*), documents the identification, evaluation, and control of risks. The matrix is updated annually. There is a separate Risk Panorama for environmental risks.

Pantaleon has several documents in its IMS that describe its procedures for identifying, evaluating, and mitigating risks and impacts. These include: i) Instructions for the Evaluation of Environmental Impacts for New Works; ii) Instructions for the Identification, Evaluation, and Registration of

³ Licencia Ambiental No. 31-2018/DIGARN.

⁴ Diagnóstico Ambiental de la Manufactura de Azúcar y Derivados del Ingenio Pantaleón.

⁵ Licencia Ambiental No. 2739-2019/DIGARN.

⁶ Estudio de Impacto Ambiental No. 704/03 (Construcción y Operación de la Planta Destiladora de Alcohol).

⁷ Diagnóstico Ambiental No. D-250-11 (Ampliación de la Planta de Proceso de Etanol).

⁸ Decreto No. 68-86, Ley de Protección y Mejoramiento del Medio Ambiente, Acuerdo Gubernativo No. 137-2016 y sus reformas, Reglamento de Evaluación, Control y Seguimiento Ambiental.

Environmental Aspects and Impacts and Control Measures; and iii) Identification of Hazards, Evaluation and Control of Risks, and Work Safety Opportunities.

4.1.c.ii Analysis of alternatives

Since the Project does not involve the construction of a specific facility, but rather the maintenance and improvement of existing facilities and operations, no alternatives analysis was conducted.

4.1.c.iii Cumulative impact analysis

Since the Project does not involve the construction of a specific facility, but rather the maintenance and improvement of existing facilities and operations, no cumulative impact assessment was conducted.

4.1.c.iv Gender risks

There is a significant gender gap, defined as the differential and unequal access to economic, political participation, educational, and occupational opportunities based on sex or gender, in Latin America and the Caribbean. This gender gap is reinforced by pervasive cultural norms regarding acceptable roles for men and women and is exacerbated by weak legal protections and/or inadequate social response. The gender gap leads to gender discrimination, unequal access to public services, educational differentials, pay and labor gaps, and lagging political participation rates. The gender gap index for Guatemala, however, is the best in the region at 0.66⁹.

Gender-based violence and harassment (GBVH) is also a significant problem in Latin America and the Caribbean, which has the highest rate in the world. Brazil, Mexico, Argentina, Peru, El Salvador, and Bolivia represent 81% of global cases. Twelve women are murdered a day in the region. In Central America, two of every three women killed is because of their gender (i.e., femicide), and the perpetrator is a partner or former partner in half of these cases. There were 160 reported femicides in Guatemala in 2019, which was the sixth most in the region¹⁰. GBVH in Latin America has been exacerbated by the COVID-19 pandemic, as indicated by a significant increase in phone calls to domestic abuse hotlines in many countries in the region¹¹.

No specific gender risks have been identified for the Project. Pantaleon, through its corresponding affiliates and/or subsidiaries, hires an all-male local and non-local workforce during the harvesting season, with non-local employees staying in housing complexes (see below). Pantaleon, through its corresponding affiliates and/or subsidiaries, hires women, however, for other types of manual labors. Pantaleon has addressed the regional gender risks through strong policies of non-discrimination, equal opportunity, and intolerance for GBVH, as well as worker training on these topics (see below).

⁹ • [Gender gap index in Latin America 2021 | Statista.](#)

¹⁰ • [Number of femicides in Latin America by country 2019 | Statista.](#)

¹¹ • [COVID-19: rise of gender violence in Latin America | Statista.](#)

4.1.c.v Climate change exposure

There is moderate to high exposure to a variety of acute and chronic hazards. The Project has high exposure to earthquakes, volcanic eruptions, and seasonal hurricane winds, the latter of which may be exacerbated as climate change continues. Another relevant climate-related hazard is heatwave exposure: the Project area faces high exposure to heatwaves under both the Representative Concentration Pathway (RCP) 4.5 (low emissions pathway) and RCP 8.5 (higher emissions pathway) climate scenarios. In addition, the area faces moderate exposure to droughts, with moderate changes to this exposure projected under the RCP 8.5 climate scenario. As a result of this profile, emergency preparedness and management of acute natural disaster hazards is crucial, particularly for the sugar plant and ethanol distillery, as is building resilience to droughts and heatwaves, particularly at the sugarcane farms. Pantaleon has responded to the heatwave risk in the last few years through its heat stress prevention programs, details of which are provided below. The Company has responded to the droughts risk through its program to reduce water consumption (see below).

The Project's exposure to transition risks is medium based on its principal characteristics. Exposure to transition risk is related to greenhouse gas (GHG) emissions, energy and water management, and the environmental impact of its supply chain. GHG emissions are the main driver of transition risk in the sugarcane industry due to emissions related to the burning of residues, the use of synthetic fertilizers, and fossil fuel combustion. The size of the sugarcane industry in Guatemala (it is the fourth largest exporter in the world) may increase the chance of political intervention, and the agricultural sector at large is targeted in the current Nationally Determined Contribution (NDC) of the country. Pantaleon has responded to these transition risks through its efforts to increase its energy efficiency (see below).

4.1.d Management Programs

There are 42 key documents in Pantaleon IMS. The most important of these include: i) Integrated Management Policy; ii) Environmental Management Plan; iii) Instructions for the Determination of Greenhouse Gas Emissions; iv) Emergency Response Plan; v) Work Safety General Rules; vi) Waste Operational Control Instructions; vii) Chemical Products Operational Control Instructions; viii) Hazard Identification, Risk Assessment and Control; ix) Occupational Hygiene; x) Noise Operational Control Instructions; xi) Instructions for the Investigation of Environmental Incidents and their Communication; xii) Instructions for the Environmental Control of Atmospheric Emissions; xiii) Implementation of Inspections; and xiv) Instructions for the Management of Grievances from Communities and Other Stakeholders.

4.1.e Organizational Capacity and Competency

Pantaleón, S.A. has a QHSE Manager that reports directly to the Company's General Manager and indirectly to Pantaleon's Corporate QHSE Manager. An Occupational Health and Safety (*Salud y Seguridad Ocupacional*, or SSO) Chief reports directly to the QHSE Manager and indirectly to the Transportation Coordinator. Six SSO coordinators report to the SSO Chief. One of the coordinators oversees logistics and has a team of two monitors, a second coordinator oversees the sugar plant and has a team of four monitors, and a third oversees the ethanol plant and COVID-19 and has a

team of five monitors. A fourth coordinator oversees sugarcane stripping (*desmontaje*) and has a team of one monitor, and the last two coordinators oversee agriculture (i.e., the sugarcane farms). One of the latter has a team of five monitors and the other has a team of four monitors.

Pantaleón, S.A. also has a Social and Community Development (*Desarrollo Social y Comunitario*, or DSC) team that consists of a DSC Chief, two DSC Coordinators, and a Communications Coordinator. The DSC Chief reports directly to the Human Resources Manager and indirectly to the Sustainable Development Chief. The Human Resources Manager reports directly to the General Manager, and the Sustainable Development Chief reports to the Sustainability Manager.

In addition, Pantaleón, S.A.'s occupational health and safety (OHS) specialists are supported by the OHS specialists of contractors. Any contractor working at the Pantaleon Mill with more than 10 employees must have an OHS specialist. As a result, there are 11 contractor OHS specialists currently working at the Pantaleon Mill. The Pantaleón, S.A. and contractor OHS specialists work together to ensure work is conducted safely.

4.1.f Emergency Preparedness and Response

Pantaleon has a Corporate Guide for Emergency Management (*Gestión de Emergencias Guía Corporativa*) that provides general procedures for preparing and responding to emergencies at Pantaleon's facilities. The document also references the documents related to emergencies in each country in which it operates. For Guatemala, it lists 10 documents: one plan, four instructive documents (*instructivos*), two guides, and three forms (*registros*).

Pantaleón, S.A.'s Emergency Response Instructions for Agricultural Processes (*Instructivo para Respuesta ante Emergencias en el Proceso Agrícola*, I-SO-I001) addresses the following emergency scenarios: i) personal injuries; ii) sickness, including COVID-19; iii) vehicle and equipment accidents; iv) fires (industrial and agricultural); v) chemical spills; vi) delinquent acts; and vii) natural disasters (earthquakes, volcanic eruptions, hurricanes, and storms). The plan includes sections on roles and responsibilities, classification of emergencies into tiers, management of hazardous materials, a list of emergency meeting points, and procedural flowcharts. As an annex, the plan includes a figure depicting information on what to do in case of emergency, including an emergency phone number, that is posted in common work areas.

Pantaleon will consolidate its various emergency preparedness and response documents into a single Emergency Preparedness and Response Plan for the Project.

4.1.g Monitoring and Review

Pantaleón, S.A.'s OHS specialists conduct daily inspections at the sugar mill and factory, ethanol distillery, and on the farms to assess compliance with OHS requirements. In addition, contractors at the factories conduct weekly inspections of other contractors, and Pantaleon audits this process. Pantaleón, S.A. also conducts regularly audits of its sugarcane suppliers to ensure compliance with its supplier requirements, including ensuring that they do not employ anyone under 18 years of age.

Pantaleón, S.A.'s inspection, incident investigation, and audit programs are described in several documents that are part of its IMS, including: i) Instruction for Carrying Out Internal Audits; ii) Incident Communication and Investigation; iii) Environmental Inspection Instructions; and iv) Inspection Implementation.

4.1.h Stakeholder Engagement

Pantaleón, S.A. has identified and developed relationships with 102 communities within the region. Pantaleón, S.A.'s DSC team maintains a matrix that lists these communities and their attributes, including points of contact. Pantaleón's most recent annual Responsible Development Report (2019) states that the company's DSC team visits community leaders prior to each harvesting season to develop Responsible Operation Agreements with these communities. Compliance with the agreements is assessed during the harvest, and communities are asked to provide feedback after the harvest is complete. In 2018, 29 communities participated in the initiative, resulting in 242 Responsible Operation Agreements. After the harvesting season was complete, a perception survey indicated that 70% of community members noted a more responsible operation compared to the previous harvest. During IDB Invest's August 2021 site visit, Pantaleón, S.A.'s DSC team stated that they periodically track the agreements and the company's compliance with them via a matrix.

Although Pantaleón, S.A. does not yet have a formal Stakeholder Engagement Plan, they do have a framework for such a plan that is published in Pantaleón's most recent annual Responsible Development Report (2019). The report indicates that the company has the following four-stage approach to community relations: i) genuine engagement; ii) participatory workshops; iii) agreements between mills; and iv) agreements and commitments.

Pantaleón has significant social invest programs for local communities. According to the most recent annual Responsible Development Report, the company supported 24 education projects, 16 community development projects, eight health projects, and five water and sanitation projects in 2019, each of which is tied to at least one of seven United Nations Sustainable Development Goals. Pantaleón's programs resulted in \$3.88 million in community investment that directly benefited 34,515 people and 184 communities. Pantaleón, S.A. also supports two educational centers and a day care center for children 5 years old and younger in Guatemala that are free of charge for the children of employees and communities. In 2019, these schools benefited 47 children at the day care center, 448 students at the Pantaleón Education Center, and 217 students at the Concepción Educational Center. In 2018, Pantaleón, S.A. extended the educational offering to include high school, and graduated the first cohort of 23 high school students in 2019.

Pantaleón, S.A. also supports an adult education program for employees. This program is open to sugarcane cutters to continue their education at the end of the working day. In Guatemala, 116 employees completed their studies in 2019, 34 in elementary education and 82 in secondary education. Pantaleón, S.A. also supports the Enactus-Pantaleón Boot Camp, which is a business acceleration program for early-stage entrepreneurs in the field of agricultural innovation. Pantaleón, S.A. invited 14 startups to participate in the program in 2019.

Pantaleón also supports the "Water for All" program, which supports communities with the drilling of wells, pump assemblies, installation of household networks, and storage and purification of

water. The program was implemented in four communities benefitting 1,565 people in 2019. Pantaleon also supports a football school that had 166 students in 2019. In addition, Pantaleón, S.A. supports, in alliance with the Technical Training and Productivity Institute (*Instituto Técnico de Capacitación y Productividad*), technical trainings that benefitted 348 people in Guatemala in 2019. The technical trainings included motorcycle mechanics, flower arrangements, baking, automotive mechanics, dressmaking, and jelly packing.

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that much of their community support in the last year was in response to the COVID-19 pandemic. An example of support provided was the donation of alcohol hand sanitizer, which was a specific request of communities. Community leaders interviewed by IDB Invest confirmed that their communities requested and were provided with alcohol hand sanitizer free of charge.

4.1.h.i Disclosure of information

Pantaleon produces an annual Responsible Development Report that is available to the public. The most recent report (2019) includes section on the company (its history, operations, products, and markets), responsible development (materiality analysis), people (human resources, benefits, training, and occupational health and safety), prosperity (community engagement, communication, and social investment), the planet (energy and water consumption, emissions, waste management, soil conservation, and biodiversity), and products and merchandise (certifications, clients, and providers).

Pantaleon's website includes information on all its operations, organized by country of operation. It also includes webpages on the company, responsible development (with information on its employees, social programs, and environmental programs), people and culture (Code of Ethics and Conduct, training, benefits, and career opportunities), products, processes, and news. It also includes links to its social media sites (Facebook, YouTube, and Twitter), and well as information on how to contact the company, including phone numbers for each of its facilities. The website is available in Spanish and English.

4.1.h.ii Informed Consultation and Participation

As mentioned above, Pantaleón, S.A. develops agreements with communities prior to each harvest season, monitors compliance with these agreements during the harvest, and requests feedback from the communities after the harvest is complete. Documentation from a few years ago indicates that Pantaleón, S.A. had 156 agreements with 25 communities at the time. Of the agreements, 91 were about traffic control, 28 were about air applications of fertilizers and pesticides, 14 were about fires, six were about water consumption, and 17 covered other issues.

4.1.h.iii Indigenous Peoples

The Project is not located near any indigenous communities and is not anticipated to impact any indigenous or native Guatemalan people.

4.1.h.iv Private sector responsibilities under government-led stakeholder engagement

Stakeholder engagement is the sole responsibility of Pantaleón, S.A. No Government-led stakeholder engagement has taken place or is foreseen to take place.

4.1.i External Communication and Grievance Mechanisms

4.1.i.i External communication

During its August 2021 site visit, IDB Invest interviewed leaders from four local communities. The leaders indicated that they are in constant communication with Pantaleón, S.A.'s DSC team. They indicated that their preferred method of communication is by cell phone calls, followed by the WhatsApp platform. They have the cell phone number of the company's DSC personnel and feel comfortable calling them at any time to discuss any issue of importance to the community.

4.1.i.ii Community grievance mechanism

Pantaleón, S.A. has a grievance mechanism for communities known as "Pantaleón Te Escucho," which is described in the company's Instructions for the Management of Grievances from Communities and Other Stakeholders (*Instructivo para la Gestión de Quejas de las Comunidades y Otros Grupos de Interés*). The mechanism can be accessed by telephone, e-mail, website, mail, or in person. The mechanism is advertised via 21 billboards (*vallas publicitarias*) located at strategic points for communities. Grievances are treated with confidentiality and can be anonymous. In the case of anonymous complaints, the community leader of the complainant is informed about the grievance and the results of the investigation. Pantaleón, S.A.'s DSC team maintains a matrix recording the details of all grievances received and their outcomes.

According to Pantaleón's most recent annual Responsible Development Report, Pantaleón received 45 complaints in 2019. The subject of the complaints were: i) damage to private/community property (27%); ii) dust (22%); iii) speed/transportation (18%); iv) damage to roads (9%); v) bad smells (7%); vi) damage to crops by aerial application (4%); vii) other (4%); viii) damage to power lines (2%); ix) noise (2%); x) alleged impact to community water (2%); and xi) damage due to programmed burning (2%). 100% of these complaints were addressed within 72 hours.

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

During IDB Invest's August 2021 site visit, Pantaleón, S.A.'s DSC team stated that Pantaleón, S.A. has special procedures to address allegations of sexual harassment or assault due to their sensitive nature. Special care is taken to maintain confidentiality to protect the alleged victim, and to provide as much support and help as possible.

4.1.j Ongoing Reporting to Affected Communities

Pantaleón holds Impact Workshops with community leaders to share information on the processes in Pantaleón's operations that may have impacts on communities and the mechanisms adopted to

mitigate these impacts. In 2019, Pantaleon held 54 such workshops with the participation of 548 community leaders. Pantaleon also provides tours for community members to learn about the company's operations. The company held 1,509 visits in 2019. Data on these programs was not yet available for 2020, but during IDB Invest's August site visit, Pantaleón, S.A. stated that its meetings and site visits decreased significantly in 2020 due to COVID-19 pandemic protocols. Pantaleón, S.A. also discloses information to community members, leaders, and local authorities, however, via communication mechanisms that were not impacted by the pandemic. These include articles in community newspapers, flyers, and banners located along roads utilized by communities.

4.2 Labor and Working Conditions

4.2.a Working Conditions and Management of Worker Relationships

According to its most recent annual Responsible Development Report, Pantaleon had an average of 13,994 employees in 2019 and over 21,200 employees during its 2018/2019 harvest season. 93% of the former were male and 7% were female. 8,563 of these employees worked in Guatemala. Of these, 3,267 were permanent and 5,296 were temporary, and 8,225 were male and 338 were female. The percentage of women varied by area, with women accounting for 22% (66 of 296) of administrative positions, 19% (119 of 627) of administrative support positions, 3% (5 of 151) of supervision/technical positions, and 2% (149 of 7,492) of operational positions.

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that there are approximately 1000 people that work at the Pantaleon Mill. Permanent field employees are augmented by the hiring of approximately 200 people a day during the harvesting season. Pantaleón, S.A. operates two housing complexes in Guatemala that are utilized during the harvest season to house non-local employees. These employees come from other parts of Guatemala and there are no foreign employees. Most of these seasonal employees are male. Pantaleón, S.A. does employ some local sugarcane laborers that are female, however, and hires female employees for other manual jobs. The first housing complex, located near the Pantaleon Mill, can house 600 people, and the second can house 450 people. The camps have medical clinics that are staffed by doctors and nurses, a cafeteria that serves breakfast and dinner and prepares lunches for employees to eat during the day in the field, beds and sleeping accommodations, and community bathrooms with showers. The housing complexes also include outdoor recreation areas, although recreational activities were diminished last year due to pandemic safety protocols.

4.2.a.i Human resources policies and procedures

Pantaleon has a Responsible Labor Conditions Policy (*Política de condiciones laborales responsables [RRHH]*) and a Code of Ethics and Conduct (*Código de Ética y Conducta*). The objective of the former is to: "Define the guidelines to create and organizational culture based on values, ethical principles, trust, and respect for human dignity. Recognize the importance of relationships with employees, since human capital is the main asset of our organization." The Code of Ethics and Conduct is signed by the President of the company and is dated November 2017.

In addition, Pantaleón, S.A. has an Internal Work Regulation (*Reglamento Interior de Trabajo*) that consists of 54 articles. The regulation was approved by the General Directorate of Labor (*Dirección*

General de Trabajo) on November 17, 2014, via Resolution No. 244:2014 as compliant with the Guatemalan Work Code (*Código de Trabajo*). A modification of the regulation was approved in 2018 via Resolution No. 296-2018.

4.2.a.ii Working conditions and terms of employment

Pantaleón, S.A.'s Internal Work Regulation states that the company is obligated to: "Deliver a photocopy of the employment contract already authorized by the Ministry of Labor and Social Welfare to each worker." Pantaleón's most recent annual Responsible Development Report (2019) states that 100% of its employees have a written contract that regulates the work relationship and provides details such as hours of work, payments, and obligations of employees and employers, in compliance with national and international labor laws. Pantaleón pays benefits to employees according to local legislation, including rest days, national holidays, vacations, bonuses, and Social Security contributions. All employees are paid above the minimum wage and can earn additional bonuses based on productivity. Salaries are deposited in bank accounts from which employees can access their money through debit cards, promoting financial inclusion and reducing security risks. In addition, employees can opt for benefits such as savings programs, daycare, and free education for their children in schools sponsored by Pantaleón. Non-local, seasonal employees receive additional benefits, such as housing in company-provided complexes, food, recreational services, and an educational program that allows them to complete elementary and high school education.

Benefits provided to employees include: i) personal protective equipment; ii) disability coverage; iii) training; iv) post-mortem assistance; v) pension plans; vi) uniforms; vii) medical insurance; viii) housing and accommodation; ix) nutrition and food; x) adult education; xi) life insurance; xii) savings bank account; xiii) medical clinics; xiv) educational centers; xv) consumer cooperation; xvi) transportation; and xvii) recreational programs.

4.2.a.iii Workers' organizations

Guatemala's Work Code guarantees the freedom of employees to form and join a labor union. Pantaleón, S.A.'s Internal Work Regulation requires the company to comply with the Work Code, thereby guaranteeing the freedom of its employees to join a labor union. Pantaleón's employees have had the freedom to join labor unions, when desired and when they have complied with legal requirements. Pantaleón's most recent annual Responsible Development Report (2019) states that 333 of its employees at its Pánuco Mill (Mexico), 73 of its employees at its Monte Rosa Mill (Nicaragua), and 100% of its employees at its Vale do Paraná Mill (Brazil) are unionized.

4.2.a.iv Non-discrimination and equal opportunity

Pantaleón, S.A.'s Internal Work Regulation states that the company cannot: "Discriminate on the basis of race, nationality, sex, age, disability, HIV/AIDS, and political opinions of its employees, and for any other reason according to law." Pantaleón, S.A.'s Responsible Work Conditions Policy states: "Management must maintain work environments free of discrimination in any of its expressions, by race, gender, age, nationality, ethnic or social origin, religion, disability, language, political orientation." Finally, Pantaleón's Code of Ethics and Conduct states that Pantaleón must: "Provide

all employees with equal opportunities, regardless of race, sex, age, color, ethnic origin, sexual orientation, religion, or disability, in making selection, hiring, and development decisions in the company.”

The Internal Work Regulation also has specific provisions aimed at women. For example, it states that it is the company’s responsibility to maintain a childcare center run by a suitable person for the female employees’ children under three years of age. It also states that the company is prohibited from dismissing female employees for being pregnant or breastfeeding.

4.2.a.v Retrenchment

Pantaleón, S.A.’s Internal Work Regulation describes the company’s policies regarding the termination of employment, which must be done in accordance with Guatemala’s Work Code. Retrenchment is not relevant to this Project, however, as there will be no significant ramp up of personnel to execute it. Most of the activities to take place as part of the Project will involve Pantaleón, S.A.’s permanent employees. Pantaleón, S.A. hires temporary staff during the harvest season, but this happens every year and the period of employment is well comprehended and agreed upon by those employees that are hired through such mechanism. Some construction activities regarding improvements to the sugar factory will require contractors, but Pantaleón, S.A. will prioritize current contractors that they regularly hire for such activities.

4.2.a.vi Grievance mechanism

Pantaleón, S.A.’s Internal Work Regulation states that all employees have the right to make a claim or request related to working conditions. Employees can lodge complaints or suggestions anonymously. The Human Resources department is responsible for handling complaints and suggestions, communicating complaints to the proper department for resolution, and supporting both the department in charge of resolving the complaint and the complainant. Resolution of complaints must be developed within one month, communicated to the complainant within two days of developing the resolution, and implemented within five days of developing the resolution.

Pantaleón, S.A.’s worker grievance mechanism is branded as a mechanism to report non-compliances with its Code of Ethics and Conduct. During IDB Invest’s August 2021 site visit, however, human resources personnel stated that the code is broad in scope and that employees can lodge any type of grievance through the mechanism, even if it is not directly related to specific requirements of the code. They also stated that the mechanism is open and applicable to both contractors as well as Pantaleón, S.A.’s employees. The mechanism can be accessed via a telephone number, e-mail, or website. Pantaleón, S.A. has an Ethics and Conduct Committee that receives, monitors, and resolves complaints.

According to Pantaleon’s most recent annual Responsible Development Report, the company received 131 worker complaints in 2019. The subject of the complaints were: i) mistreatment and disrespect (22%); ii) corruption and bribery (16%); iii) labor standards (16%); iv) sexual abuse or harassment (8%); v) theft (6%); vi) conflict of interest (5%); vii) use of assets (5%); viii) personnel selection (4%); and ix) other (18%). All 131 of the complaints had been duly resolved by the time the annual report was published.

4.2.b Protecting the Workforce

4.2.b.i Child labor

Guatemala's Work Code sets 14 years old as the minimum age to work in the country, and Pantaleón's Code of Ethics and Conduct states that the company respects all minimum age laws. Pantaleón, S.A.'s Responsible Work Conditions Policy states: "Grupo Pantaleón rejects child and minor labor in all its expressions, and Management is responsible for ensuring compliance with this commitment." Although these policies do not state the minimum age of employment at Pantaleón, S.A., during IDB Invest's August 2021 site visit, the company's human resources manager stated that the company does not employ anyone under 18 years of age. This is supported by Pantaleón's most recent annual Responsible Development Report, which provides data on the age of its employees. The youngest age category is 18-29, which accounts for 40% of the workforce.

4.2.b.ii Forced labor

Forced labor is prohibited by the Political Constitution of the Republic of Guatemala (*Constitución Política de la República de Guatemala*) and, by extension, it is prohibited by Guatemala's Work Code and thus Pantaleón, S.A.'s Internal Work Regulation. In addition, Pantaleón, S.A.'s Responsible Work Conditions Policy states: "Grupo Pantaleón rejects any form of forced labor."

Pantaleón's most recent annual Responsible Development Report (2019) states: "We submit to the standards led by the 'UK Modern Slavery Act'. Our goal is absolute elimination of any form of modern slavery by fomenting a culture of respect for human rights, and we encourage and expect our providers to do so as well."

4.2.c Occupational Health and Safety

Pantaleón's Code of Ethics and Conduct states that its employees have the responsibility to not participate in work that they consider has the potential for an accident with potential human damages or material consequences. Instead, employees should clearly state their concern and encourage a review of the activities involved. Employees should stop work if they detect or foresee unsafe working conditions and that there is a possibility of an accident with potential human damages or material consequences. Employees are prohibited for working under the influence of drugs or alcohol and must communicate if they are aware of other employees working under the influence. Employees must also know and practice all company policies and procedures and current regulations related to environmental preservation and pollution prevention.

Pantaleón, S.A.'s Internal Work Regulation addresses occupational health and safety. It lists 13 obligatory measures of employees and 12 obligatory measures for the company to ensure the health and safety of the workforce. It also describes the composition, responsibilities, and activities of the company's Occupational Health and Safety Committee (*Comité de Salud y Seguridad Ocupacional*).

Pantaleón's most recent annual Responsible Development Report provides occupational health and safety data from 2019. It states that the company provided 89,758 training hours and 1,510 training events, addressed 7,661 unsafe practices, trained 562 safety brigades, and conducted 567 third-

party audits on occupational safety issues, 3,255 inductions in occupational safety for employees and third-party personnel, 41 occupational health and safety campaigns, 16,448 inspections, and 58 drills during the year. The report shows a reduction in the company's frequency rate from 8.6 in 2012/2013 to 1.8 in 2018/2019.

All Pantaleon mills have health clinics that offer primary care, ophthalmology, and dentistry services as benefits to employees and their families. Pantaleon health clinics conducted the following activities in 2019: i) vaccination campaigns; ii) preventive outreach programs; iii) detection of chronic degenerative disease; iv) pre-employment medical consultations; v) follow-up checkups; vi) awareness campaigns on health issues; vii) daily talks by health brigades; and viii) mobile health centers. The clinics recorded 64,887 medical visits, 13,603 training events, 124,210 training hours, 23 health outreach programs, 11,995 dental consultations, 24,259 pre-employment medical consultations, and 11,313 follow-up medical exams in 2019.

During IDB Invest's August 2021 site visit, Pantaleón, S.A.'s SSO team stated that they have six SSO coordinators: one for the sugar factory, one for the ethanol distillery, one for sugarcane stripping (a contractor), one for the production of alcohol, and two for agricultural operations. The latter two support and address agricultural suppliers as well as direct employees. The SSO team tracks several key performance indicators (KPIs), including lost time incidents, frequency rate, severity rate, and historic CPT. There has been a significant improvement in KPIs since 2013. These improvements have been brought about by an increased focus in OHS since that time. For example, the OHS team has increased from three people in 2013 to 16 people in September 2021. There has also been a significant increase in the OHS team's budget, and the team now reports to management instead of human resources. Pantaleón, S.A.'s lost time incidents have decreased from 3.19 in 2015/2016 to 0.10 in 2019/2020, and were 0.02 for 2020/2021 by August 2021. The historic CPT has decreased from 162 in 2013/2014 to 21 in 2019/2020. There were no fatalities and 18 lost time incidents for 2020/2021 by August 2021.

4.2.c.i Chronic Kidney Disease

In Central America, Chronic Kidney Disease of unknown origin (CKDu) affects young male agricultural workers and is not associated with traditional causes of CKD, such as diabetes and hypertension. The disease was first identified in 2002 among sugarcane cutters, but also occurs in other occupational groups, including other agricultural workers, fishermen, miners, and construction workers. It also occurs at a lower frequency in women. While the causes have yet to be determined, heat stress and dehydration has become the favored explanation for the CKDu epidemic. Other possible causes include infection/inflammation, pesticides, non-steroidal anti-inflammatory drugs (NSAIDs), population genetics, and alcohol consumption.

In 2004, Pantaleon initiated a heat stress prevention program in Nicaragua for sugarcane cutters, which was replicated in Guatemala in 2009. The program currently covers all employees exposed to heat. During the hiring process, Pantaleón, S.A. performs overall health evaluations and creatinine tests to all its agricultural employees. Creatinine tests calculate the estimated glomerular filtration rate (eGFR); multiple tests are conducted to verify accuracy in cases of diminished eGFR. Only employees with eGFR above 90 are eligible to work in jobs with high heat exposure. Employees found to have diminished eGFR may be assigned to other jobs functions, have periodical medical

check-ups by Pantaleón's doctors, and/or be referred to the national health system for follow up, according to their condition.

Pantaleón's Heat Stress Prevention Protocol includes mandatory breaks in shade and unexposed to the sun (three 20-minute breaks and a 1-hour lunch break), easy access to clean drinking water (5-10 liters per workday, adjusted for work hours and type of labor), rehydration solution (3-5 liter per day per worker), sanitary facilities, and transportation. Two health monitors accompany each work group and monitor the correct implementation of the mandatory breaks and hydration, educate employees on healthy habits, and provide first-aid response. Random urine tests are periodically performed to measure in-field hydration levels.

In 2016, Pantaleón initiated its Total Worker Health program, expanding its health programs to all employees, integrating policies, programs, and practices dedicated to protecting employees from work-related health and safety risks and promoting injury and illness prevention. This includes programs on wellness, drug and alcohol prevention, occupational health, and COVID-19 prevention.

In 2016, Pantaleón initiated a long-term collaboration with the University of Colorado's Center for Health, Labor, and Environment to investigate the causes of CKDu. This research has focused on the following topics: i) identification of risk factors for non-communicable diseases, including chronic kidney disease; ii) evaluation of evidence-based practice to mitigate the risk of developing disease; and iii) evaluation and improvement of Pantaleón's Total Worker Health program. Pantaleón and the University of Colorado have conducted thirteen scientific investigations to date. In 2021, they will initiate three additional studies financed by the United States National Institute of Health. These studies aim to evaluate the impact of particulate matter (dust) exposure on kidney health, off-work exposure and recovery in male sugarcane cutters, and the impact of air pollution on the kidney health of women.

4.2.d Provisions for People with Disabilities

As mentioned above, Pantaleón, S.A.'s Internal Work Regulation, Responsible Work Conditions Policy, and Pantaleón's Code of Ethics and Conduct all prohibit discrimination against people with disabilities. During IDB Invest's August 2021 site visit, human resources personnel stated that Pantaleón, S.A.'s facilities include provisions and mechanisms for people with disabilities in accordance with Guatemalan law, including handicapped parking spaces and access ramps.

4.2.e Workers Engaged by Third Parties

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that there are currently 11 contractors working at the Pantaleón Mill, which comprise approximately 10% of the workforce. Contractors with more than 10 employees working at the Pantaleón Mill are required to have an OHS specialist. Pantaleón, S.A.'s SSO team manages all contractors working at the sugar factory to ensure their compliance with company policies and procedures. Contractors are managed via a software application, Clever Global, specifically designed for this purpose.

According to Pantaleón's most recent annual Responsible Development Report, the company also utilizes a tool to assess the occupational health and safety and environmental compliance of its contractors and suppliers. The system was utilized to manage and supervise 731 contractor companies, 9,104 contractor employees, and 2,654 pieces of equipment (vehicles and machinery). The system is designed to ensure that contractors meet established requirements before being granted access to Pantaleón's facilities.

Pantaleón, S.A. has a Contractors Regulation (*Reglamento para Contratistas*) that is part of its IMS. The regulation includes sections on: i) brief aspects of the management system; ii) contractor legal and formal requirements; iii) requirements for operation with responsible development; iv) high risk jobs and emergency plan; v) flammable material and use of pipes; vi) communication, incident reporting, and medical assistance; vii) short-term hired employees; viii) cleaning and waste management; ix) other responsibilities, obligations, and prohibitions; x) environmental provisions; xi) quality and safety measures; xii) sustainability measures; xiii) sanctions; and xiv) unforeseen situations.

4.2.f Supply Chain

Pantaleón's Code of Ethics and Conduct states that the company does not carry out commercial transactions with suppliers that "operate outside the law" or "demonstrate irresponsible social and/or environmental practices." It also states that suppliers must comply with Pantaleón's Supplier Code of Conduct, which prohibits child and forced labor.

According to Pantaleón's most recent annual Responsible Development Report, Pantaleón utilized 4,440 suppliers in 2019, of which 91% were local. In 2019, Pantaleón began implementation of a new technological platform called PantaCompras to manage suppliers. The system is designed to provide the company with greater traceability and transparency in its supply chain. Pantaleón trained 563 employees and 565 suppliers in the use of the tool in 2019. In 2020, the platform was changed to Ariba, which serves the same purpose as the previous platform. Pantaleón, S.A. also recently instituted a Supplier Incubation Program. The objective of the program is to help suppliers to develop a successful, innovative, and sustainable business model that contributes to the creation of employment and the improvement of living conditions.

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that they have a program to help its agricultural (i.e., sugarcane) suppliers to improve their environmental and social performance. It was stated that this is not the case regarding child labor, however, as the contracts with suppliers found to be employing people under 18 years of age are immediately terminated.

Pantaleón, S.A. has a Suppliers Manual (*Manual de Proveedores*) that sets forth its requirements for suppliers. Auditors are utilized to verify the compliance of suppliers with these requirements, including its prohibition of child labor.

4.3 Resource Efficiency and Pollution Prevention

4.3.a Resource Efficiency

According to Pantaleon's most recent annual Responsible Development Report, the company reused 99.88% of its waste and achieved an 18% reduction in waste created in 2019, a 56% reduction in water consumption from 2013 to 2019, and an 11% increase in water reutilization in 2019. The company consumed 330,870 MWh of electricity in 2019, 99.5% of which was supplied to its own cogeneration. In addition, 605,704 MWh of the electricity it produced was sold to the National Interconnected Systems and/or energy markets, and 91.7% of the fuels used to produce their electricity come from renewable sources (mostly bagasse).

4.3.a.i Greenhouse Gases

According to Pantaleon's most recent annual Responsible Development Report, the company produced 341,383 metric tons of carbon dioxide (CO₂) in 2019, of which 203,648 metric tons was emitted by industrial processes and 137,735 metric tons by agricultural processes; 27% of these emissions were from soil and fertilization, 6% from sugarcane burning, 9% from machinery and transportation, 2% from energy use, 55% from fuels and energy production, and 1% from effluent treatment.

In Guatemala, the Institute for Climate Change, with the support of the U.S. Agency for International Development, analyzed the carbon footprint of the sugar industry and its GHG emissions reduction strategies over the last 20 years. Their study found that the sugar industry has reduced its carbon footprint as a result of improvements in production practices. For example, the dose of nitrogen fertilizers per ton of cane has diminished by 11%. Transportation of sugarcane has also become more efficient, reducing the use of fossil fuels. In addition, 129% more energy is produced with the same ton of sugarcane compared to 20 years ago. The use of bagasse as renewable energy reduces the carbon footprint of sugar and provides renewable energy to the national electric power grid. In 2019, Pantaleon decreased the number of fields harvested by burning (67.7% of its harvests were mechanized and 60.9% were mechanized without burning [green harvest] in 2019) and reduced the use of mineral coal in its production of energy, reducing greenhouse gas emissions by 12% and 23%, respectively. Pantaleon also voluntarily adopted the Greenhouse Gas (GHG) Emissions Requirement add-on of its International Sustainability & Carbon Certification (ISCC 205-01). This is a calculation methodology and verification of GHG emissions in the supply chain that includes biomass production, conversion, transportation, and distribution.

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that it is constantly looking to increase its use of mechanized green harvesting. The fields that are still processed and harvested manually tend to be those that are located farther away from the sugar factory in areas that are not as flat and, thus, not as conducive to mechanized harvesting.

Pantaleón, S.A. has an Instructive for Determination of Greenhouse Gas Emissions (*Instructivo para la Determinación de Emisiones de Gases de Efecto Invernadero*) that is part of its IMS.

4.3.a.ii Water Consumption

According to Pantaleon's most recent annual Responsible Development Report, Pantaleon reduced its water consumption by 56% from 2013 to 2019. The principal measures adopted to achieve this reduction are: i) recirculation systems for water consumption reduction; ii) reuse of industrial water for agricultural irrigation; iii) lining of irrigation canals; iv) gauging of water sources; v) evaluation of soil moisture; vi) supervision of irrigation equipment in real time; vii) water harvest; viii) sugarcane cleansing without the use of water; and ix) investment in more efficient technology. For example, an industrial water recirculation system was installed at the Pantaleon Mill that reduced its total consumption by 82%.

In 2019, 14.45% of Pantaleon's water consumption was from reused water, an increase of 11% from 2018. At the Pantaleon Mill, the company installed well and surface water flow meters, water injection pumps, and a condensate collection tank. In its agricultural fields, it invested \$3.6M in semi-fixed irrigation and \$6M in gravity spray irrigation in 2019.

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that they use state of the art technology to determine which fields require water. For example, they analyze the color of the fields in satellite imagery to determine which have sufficient water and which require more.

4.3.b Pollution Prevention

Pantaleón, S.A. has an Atmospheric Emissions Environmental Control Instructive (*Instructivo para el Control Ambiental de las Emisiones Atmosféricas*) that describes procedures and parameters for monitoring fixed and mobile sources of emissions. The company also has Noise Operational Control Instructions (*Instructivo para el Control Operacional del Ruido*).

4.3.b.i Wastes

According to Pantaleon's most recent Responsible Development Report, the company reduced its waste production by 18% in 2019 and reutilized 99.88% of waste produced. This is possible because most of Pantaleon's waste is organic residue from the sugarcane fields. This waste is reutilized to make byproducts and as a source of fuel (bagasse). According to the report, the company produced over 2 billion metric tons of waste in 2019. Of this, 73% was reused, 18% was composted, 8% was stored, 1% was recycled, and 0.12% was disposed of at a dumpsite (1,458,080 metric tons) or landfill (956,800 metric tons) or was incinerated (36,890 metric tons).

Pantaleón, S.A. has Waste Operational Control Instructive (*Instructivo para Control Operacional de Residuos*) with procedures for the classification of non-hazardous and hazardous waste, segregation and disposal of waste, and requirements for: i) waste receptacles and containers; ii) collection and transportation of waste; iii) temporary storage of waste; and iv) control over the final deposit of waste.

Pantaleón, S.A. also has a Hazardous and Non-Hazardous Waste, Effluent, and Atmospheric Emissions Plan (*Plan de Manejo Integral de Residuos Sólidos Peligrosos y No Peligrosos, Efluentes y Emisiones Atmosféricas*). The section on solid waste lists the types of wastes produced by the

company and describes procedures for segregating, recycling, transporting, storing, and final disposal of non-hazardous and hazardous waste, including medical waste. It also includes information on the certified companies utilized by Pantaleón, S.A. for the final disposal of different types of solid waste. The section on effluents indicates that domestic wastewater is discharged to septic tanks and treated with enzymes and strains of aerobic and anaerobic bacteria to help decomposition of organic matter before discharge into an infiltration field in accordance with local regulations. Industrial wastewater is treated in a wastewater treatment plant. The main effluent at the ethanol distillery is vinasse, which is treated and then utilized in the production of organic fertilizer. The quality of wastewater is monitored in accordance with local regulations.

During its August 2021 site visit, IDB Invest verified the existence of numerous waste disposal areas (*Puntos Ecológicos*) at Pantaleón's facilities. All included color-coded bins for recycling in addition to those for general waste. These bins indicate that the company recycles plastic, aluminum, glass, cardboard and paper, and organic materials.

4.3.b.ii Hazardous Materials Management

The most significant hazardous materials utilized by Pantaleón are fuels and agrochemicals. According to Pantaleón's most recent annual Responsible Development Report, Pantaleón has alliances with companies that are specialized and authorized by local authorities for the proper disposal of agrochemical containers. Pantaleón requires that agrochemical containers be triple rinsed, these containers are perforated when empty to prevent them from being reutilized, and employees that utilize the chemicals are provided with and use adequate personal protective equipment.

Pantaleón, S.A. has Chemical Products Operational Control Instructions (*Instructivo para Control Operacional de Productos Químicos*) that includes a section on roles and responsibilities and procedures for: i) acquisition and management of a new chemical product; ii) identification of chemicals (including labelling); iii) chemical storage; iv) control of chemical projects; v) secondary containment; vi) empty container provisions; and vii) training. The document lists 16 related documents within the company's IMS.

4.3.b.iii Pesticide Use and Management

Pantaleón, S.A.'s IMS includes the following instructives related to the use of pesticides: i) Instructives for the Aerial Application of Liquid Products in Organic, Transitional, and Conventional Organic Sugarcane Production; ii) Instructives for Managing Agrochemicals and Fertilizers; iii) Instructives for the Transfer of Chemical Products; and iv) Instructives for Mixing Station Management. The company only utilizes agrochemicals that comply with national laws and regulations and that are approved for sugarcane by the laws of the United States and Europe. It does not use any agrochemicals from the prohibited lists of international conventions.

During IDB Invest's August 2021 site visit, Pantaleón, S.A. stated that they make every effort to utilize biological agents instead of agrochemicals for the control of pesticides. Pantaleón, S.A. runs a biological laboratory next to the Pantaleón Mill that tests and develops new biological agents for use in their fields. The objective is to one day replace all agrochemicals with biological agents.

Pantaleon maintains the soil quality in its sugarcane farms through a program entitled “Live Soil” (*Suelo Vivo*). The program consists of the following four components: i) crop rotation; ii) adjusted fertilization; iii) liquid carbon; and iv) microbial inoculants. Rotation of crops with legumes naturally reduces pests that thrive on sugarcane and increases their natural predators. The microbial inoculants reduce pests through biological rather than chemical means, which reduces environmental impacts.

4.4 Community Health, Safety, and Security

4.4.a Community Health and Safety

4.4.a.i Infrastructure and equipment design and safety

The principal impacts of Pantaleón, S.A.’s operations are vehicular traffic, including trucks utilized to haul harvested sugarcane, and the application of agrochemicals to sugarcane fields by airplanes and drones, especially when there is an adjacent community. As mentioned above, these are the two most common topics of complaints received by the company’s community grievance mechanism.

Pantaleón, S.A. had approximately 800 drivers that logged 7,274,444 km in 2020. There were 70 collisions recorded, and the company provided approximately 350 defensive driving courses. The company has over 90 agreements with communities regarding ground transportation. To manage traffic, the company has developed a Transportation Committee (*Comité de Transporte*) that monitors the speed of the company’s vehicles as they pass through communities. The company also has a road maintenance program and road signage program.

4.4.a.ii Hazardous materials management and safety

As mentioned above, Pantaleón, S.A. has over 20 agreements with communities regarding air applications of agrochemicals. Pantaleón, S.A.’s DSC team notifies nearby communities of all air applications in advance. The company also invites community leaders to monitor the applications to ensure that they do not extend beyond Pantaleon’s farms and into the communities.

4.4.a.iii Ecosystem services

As mentioned above, the Project will not involve the acquisition of any new lands. As a result, the only ecosystem service that the Project could impact is access to water. As mentioned above, Pantaleon reduced its water consumption by 56% from 2013 to 2019 and continues its efforts to reduce its water consumption. During its August 2021 site visit, IDB Invest met with the leaders of four nearby communities. These leaders indicated that there is good communication between the company, communities, and municipal authorities regarding the shared use of irrigation canals. This communication ensures that all people and entities that are entitled to utilize it obtain sufficient water to meet their needs. As a result, the Project’s impact to this ecosystem service is expected to be negligible if not positive.

4.4.a.iv Community exposure to disease

Pantaleón, S.A. does not employ foreigners to work at the factories or on the farms in Guatemala. All factory employees and most of the farm employees live in the Escuintla region. As mentioned above, the company does hire non-local Guatemalans during the harvesting season each year. These employees are housed in its two housing complexes, which can accommodate up to 600 and 450 employees, respectively. All employees are given a medical exam prior to beginning work. If a medical condition is identified during the exam, the condition must be managed before they are allowed to commence work. All employees, as well as their family members, are provided with free medical and dental services. All employees are also offered a free COVID-19 vaccine upon hiring. They are provided with expert medical information on the vaccine and strongly advised to take it but are not required to do so. If they refuse the vaccine, however, they must take additional precautions, including regular testing. During IDB Invest's August 2021 site visit, the health and safety manager for one of the camps indicated that of the over 4,000 employees hired during the previous harvesting season, only 12 refused to get the vaccine.

4.4.a.v Emergency preparedness and response

During IDB Invest's August 2021 site visit, IDB Invest met with the leaders of four nearby communities. One of the communities represented was "Tarde Linda," which is located near the Pantaleon Mill. The community's leader stated that there is a line of communication between the company and the community for potential emergencies. He stated that this line of communication has been helpful to the community during the pandemic.

4.4.b Security Personnel

Access to the Pantaleón, S.A. sugar mill, the ethanol distillery operated by Bio Etanol S.A., and other facilities are controlled by security guards that carry arms. Pantaleón, S.A. will develop a Security Management Plan for the Project that describes the company's procedures for vetting security guards and contractors for past human rights violations, procedures for the use of force, and training requirements for security guards in the use of force and human rights.

4.5 Land Acquisition and Involuntary Resettlement

The Project will not involve the acquisition of any new land by Pantaleon. In fact, during IDB Invest's August 2021 site visit, Pantaleon stated that they intend to sell off some of the farms that are far away from the Pantaleon Mill in the coming years, thereby decreasing the amount of land owned by Pantaleon in Guatemala.

4.6 Biodiversity Conservation and Natural Habitats

4.6.a General

No new lands will be acquired and the habitat of no currently owned lands will be converted as part of the Project. As a result, the Project is not expected to impact biodiversity. Pantaleon is already implementing several biodiversity programs, however, which are described below.

4.6.b Protection and Conservation of Biodiversity

According to Pantaleón's most recent annual Responsible Development Report, the company has developed biodiversity programs in partnership with external institutions that focus on forest production, reforestation, and conservation of natural forests. The company had 7,555.46 hectares of forest plantations and conservation and reforested 119 ha in 2019. In Guatemala, the company replanted 40 ha of protection plantations on the banks of the Río Madre Vieja and 2 hectares as part of its environmental commitment for a coal-fired power generation project.

In addition, Pantaleón, S.A. conducts biodiversity monitoring of forest cover and diversity of arboreal flora, avifauna, and copronecrophagous beetles in the river basins in which the farms are located. Biodiversity monitoring reports from 2019 were provided to IDB Invest for the basins of the following rivers: i) Río Nahualate; ii) Río Madre Vieja; iii) Río Maria Linda; iv) Río Achiguate; v) Río Coyolate; and vi) Río Acomé. The reports present the results of the monitoring and include recommendations to mitigate the company's biodiversity impacts.

4.6.b.i Modified Habitat

The Project will only involve activities within Pantaleón's existing facilities and farms, all of which are considered to be modified habitat.

4.6.b.ii Natural and Critical Habitat

The Project is not anticipated to impact any natural or critical habitat.

4.6.b.iii Legally protected areas and internationally recognized areas

None of Pantaleón's existing facilities or farms intersect any legally protected or internationally recognized areas.

4.6.b.iv Invasive alien species

The Project's activities are not expected to introduce any invasive alien species to the region.

4.6.c Management of Ecosystem Services

As mentioned above, the only ecosystem service that the Project could impact is access to water, and its impact to this ecosystem service is expected to be negligible if not positive.

4.6.d Sustainable Management of Living Natural Resources

The Project will not involve the primary production of living natural resources.

4.6.d.i Supply chain

Pantaleón, S.A. does not have any procedures to vet and monitor key suppliers regarding their potential conversion of natural or critical habitat.

4.7 Indigenous Peoples

Pantaleón's facilities and farms are not located within any indigenous communities and the Project is not anticipated to impact any indigenous people.

4.8 Cultural Heritage

The Project will not involve the acquisition of any new land, any ground-disturbing activities outside of those areas that have already been disturbed by similar activities that could impact archaeological or paleontological resources, or the demolition of any buildings or infrastructure that could be historic or of living heritage value to nearby communities. As a result, the Project is not anticipated to impact any cultural heritage.

4.8.a Chance Find Procedures

Pantaleón, S.A. has not yet developed a procedure for the unanticipated discovery of cultural heritage during ground-disturbing activities. Based on the above, however, the necessity of a procedure to address unanticipated discovery of cultural heritage is not anticipated during the Project.

5. Local Access of Project Documentation

General information on Pantaleón's operations in Guatemala can be accessed at the following website: <https://www.Pantaleón.com/#ingenios-guatemala-Pantaleón>.

Pantaleón's most recent annual Responsible Development Report (2019) can be accessed at the following website: <https://www.Pantaleón.com/downloads/Pantaleón-Reporte-de-Desarrollo-Responsable-2019.pdf>.