BSI-ASR II – Belize
Environmental and Social Review Summary (ESRS)

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

The proposed transaction to Belize Sugar Industries ("BSI" or the "Company") consists of a financing package that will be guaranteed by BSI's parent company, ASR Group International, Inc. ("ASR"), domiciled in the U.S. BSI will use IDB Invest funds to partially finance; (i) fixed investments to (a) reduce logistics times and costs for the export of raw sugar and molasses and (b) increase the production value added direct consumption sugar, and (ii) pre-export financing for the payment of sugar cane suppliers (the "Project"). This would be IDB Invest's second operation with BSI, Belize's main sugar mill, this being one of the country's leading agribusiness sectors, with 90% of its production destined for export.

Due to the travel restrictions imposed by the COVID-19 pandemic, the Environmental and Social Due Diligence ("ESDD") was done remotely and in-tandem with closing Environmental and Social Action Plan ("ESAP") items from the first operation. IDB Invest held conference calls and exchanged documentation with representatives from BSI-ASR to assess the current environmental and social performance of the Project, identify potential gaps, and develop a new ESAP to close such gaps. The review assessed the Project's compliance with applicable Environmental and Social ("E&S") national laws, regulations and permits, the IDB Invest Environmental and Social Sustainability Policy and the International Finance Corporation ("IFC") Performance Standards ("PSs").

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 key impacts: (i) increase in occupational health and safety ("OHS") risks during construction (ii) emission to the air and effluent quality discharged to a surface water body; and (iii) traffic risks from increased land-based transport. These impacts are deemed to be of medium intensity.

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; (iv) PS4: Community Health, Safety, and Security.

3. Environmental and Social Context

3.1 General characteristics of the Project's site

BSI's facility includes a sugar mill with an annual crushing capacity of 1.3 million tons of sugarcane, and an average daily milling throughout of 6,800 tons. Adjacent to the sugar mill is a 31.5 mega-watts ("MW") cogeneration energy power plant; the Belize Co-Generation Energy Limited ("BELCOGEN") plant, which powers the Company's milling operations. BELCOGEN also exports electricity to the national public grid, providing Belize with approximately 15% of its energy. The facility is also home to four effluent water treatment ponds and a buffer pond. Additional cooling ponds exist following the treatment process on the compound. The facility is located in Northern Belize and is approximately 4 km south of Orange Walk Town with a population of 13,709.[1] The Tower Hill village (population of 315) is 1.3 km south of the mill and the villages of Chan Pine Ridge (population of 446) and San Jose Palmar (population of 1,355) are 2.5 km south-east and 2.5 km north of the mill respectively. East of the facility is the New River, which is used as the primary water source for BSI's facility. Power transmission lines from the facility connect to the main grid cross this river and traverse the low lying lands to the eastern bank. To the west of the facility is the Old Northern Highway which links the Orange Walk and Corozal Towns in the north and Belize City to the south. The Company will be transitioning from the use of barges to trucks to transport sugar and molasses to Big Creek Port for export, and will also install storage facilities at that location.

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

4.1 Assessment and Management of Environmental and Social Risks

An Environmental Impact Assessment ("EIA")[2] was prepared for BELCOGEN in 2002, and it outlines several risks and impacts still applicable to BSI's current operations, including those associated Project's activities. To mitigate against E&S risks resulting from BSI's existing operations, an Environmental Compliance Plan ("ECP") was agreed between BSI and the Department of Environment ("DOE") in 2017, which grants the Company clearance to operate the BELCOGEN plant. BSI's agricultural operations and sugar milling facilities are certified by international Safe Quality Food ("SQF") Kosher, Fairtrade, and ProTerra (2019 and 2020)[3] food management and safety standards. The Company is currently exploring Bonsucro[4] certification. Under the ECP, the Company is required obtain an annual Effluent Discharge License from the DOE for the discharge of effluent into the environment, and the last was acquired in year 2021.

4.1.a E&S Assessment and Management System

BSI has an Environmental and Social Management System ("ESMS"), which is guided by the Company's Environment, Health and Safety Integrated Management System ("EHSIMS") Manual.

[1] Belize Population and Housing Census, Country Report 2010.

[2] Belize Sugar Industries Ltd (BSIL) Environmental Impact Assessment Cogen Project, Tower Hill Sugar Plant, Belize.

[3] The certification covers large-scale agricultural production across the value chain and provides compliance with best practice health and safety regulations.

[4] Bonsucro Production Standard and Bonsucro Chain of Custody Standards that ensure that sugarcane production benefits producer communities, ensures fair treatment of people and creates long-lasting, traceable supply chains.

The Manual is applicable to BSI's agriculture, industrial operations and supply chain activities, including those to be undertaken for the Project. It outlines several ESMS elements, such as (i) an Environmental Health and Safety ("EHS") Policy, (ii) organizational roles, responsibilities and authorities, (iii) monitoring, measurement, analysis and performance evaluation, (iv) internal and external communication, (v) consultation and participation of workers, (vi) regulatory compliance, (vi) objectives, targets and programming, (vii) resource allocation, (viii) continual improvement, among others. The EHSIMS provides an overarching E&S framework that connects corporate and site specific procedures, processes, templates, work instructions and standard operating procedures ("SOPs"). An SOP for Emergency Preparedness and Response ("EPP") forms part of the Company's ESMS.

4.1.b Policy

ASR has an overarching Environment, Health and Safety ("EHS") Policy, which is applicable to the Project. It is endorsed by top management and complies with the requirements of ISO 14001:2015 and ISO 45001:2018. It includes: (i) commitments to compliance, (ii) continual improvement, (iii) protection of the environment (including prevention of pollution), (iv) the provision of safe and healthy work conditions, (v) the elimination of hazards, and (vi) reduction of health and safety risks. The Policy is required to be communicated to all employees and is available to the public upon request.

4.1.c Identification of Risks and Impacts

The Company employs several procedures under its ESMS to identify, categorize and manage risks to its operations and which are appliable to the Project. They include SOPs for (i) an Environmental Aspects and Impacts Standard (ii) a Health and Safety Hazards and Risks standard, and (iii) a Risk Assessment for Transportation of Sugar Cane, among others.

4.1.c.i Direct and Indirect Impacts and Risks

Direct risks from the Project's operations include: (i) traffic safety risks from the increased use of trucks for transport of sugarcane and (ii) OHS risks from construction operations at Big Creek Port. The Company has responsibility at a corporate level to adapt programmes that will make operations environmentally friendly (reduce generation of wastes and improve green energy generation, among others). To achieve this and manage the aforementioned risks, the Company will update its ESMS in line with PS1.

4.1.c.ii Gender Risks

BSI has a task-based risk inventory to identify general risks (frequency and severity) and implement control measures for the workforce (disaggregated into men and women). This inventory is revised and re-evaluated when changes are made to the workforce. Additionally, BSI has applied IDB Invest's Gender Risk Assessment Tool ("GRAT"). To safeguard pregnant women, the Company removes them from performing riskier activities, and will provide accommodations for lactating women at BSI's facility that are private and accessible to female staff.

4.1.c.iii Climate Change and Natural Hazard Exposure

At BSI's facility, there is exposure to natural hazards such as hurricanes and riverine flooding. There is also potential exposure to sea level rise, precipitation changes and drought (with climate change). Under the Company's EPP SOP, a Hurricane and Natural Disaster Plan and Master Checklist is managed and implemented by BSI's Hurricane Preparedness Committee comprised of several Departments in the Company. BSI is a member of the National Emergency Management Organization ("NEMO") at Orange Walk District and the Company is actively involved in their planning for natural disaster emergency response. There is limited exposure to climate transition risks, due to the Project's focus on environmental investments. Climate transition opportunities exist in: (i) reducing waste and (ii) assisting suppliers with expertise and technologies for climate-smart sugarcane production. To enhance these opportunities, IDB Invest provided the Company with a *Value Chain Opportunities and Climate Resiliency for Sugar Cane Farmers in Belize* Advisory Service in 2020. The analysis included: (i) sugar cane variety management, (ii) precision agriculture, (iii) supply chain logistics, (iv) an action plan for climate smart agriculture and sustainable farming, and (v) resilient farmer livelihoods.

4.1.d Management Programs

The Company's ESMS is comprised of several management programs (SOPs, Work Instructions, Policies and Quality Systems Documents from different BSI Departments and the ASR Group) that will be applied to the Project.

4.1.e Organizational Capacity and Competency

The Company's ESMS is managed and implemented by a team of qualified staff which include: (i) an EHS Regional Manager, (ii) an EHS Coordinator, (iii) an EHS Assistant, (iv) an EHS Supervisor, and (v) a Communications & Government Affairs Officer. Oversight to the Belize team is provided by the ASR Group, which has: (i) a Corporate Director of Health and Safety, Environmental Compliance, Sustainability, Security, (ii) a Vice President of Social Corporate Responsibility and (iii) a Senior Director of Environmental, Health and Safety, and Security. Additionally, the Company has appointed a Cane Farmer Relations ("CFR") Manager that oversees Company relations with farmer associations and the suppliers of BSI.

4.1.f Emergency Preparedness and Response

The Company has an EPR SOP to respond to any emergency situations related to the Project. It includes: (i) program awareness, (ii) communications, (iii) Life and Fire Safety ("L&FS"), (iv) medical emergencies, (v) material and chemical spills, (vi) engagement of communities and cane farmers, (vii) training and drills, (viii) evacuation procedures and (ix) roles and responsibilities, among others. The Company provides regular emergency training, and certifies employees for confined space, fire fighter and first response. BSI's Training SOP is supported by a calendar of activities, a training attendance form and training registrar.

4.1.g Monitoring and Review

The Company undertakes bimonthly audits to monitor EHS compliance and an Action Plan is prepared in the event of non-conformances. The Company's Internal Audit SOP is applied to all five sections of the Company's industrial operations. Audit results are communicated in monthly EHS meetings and an Internal Audit Report is prepared to identify opportunities for improvement. BSI's Non-Conformity and Improvement SOP supports the internal audit process, and outlines a procedure for corrective actions. The Company has been externally audited by international sustainability foundations, such as Fairtrade and ProTerra. BSI's other management programs also have documentation and evaluation procedures, and the Company determines its operational sustainability via a web-based platform fed by a multi-departmental database.

4.1.h Stakeholder Engagement

As a result of the previous transaction, the Company made improvements to its external communication and grievance mechanisms to mitigate against reputational risks associated with its operations, such as the BELCOGEN facility. During the 2002 EIA process for the BELOCOGEN facility, two public consultations were held in accordance with DOE standards and national regulations.[5] The local settlements of San Jose Palmar and Chan Pine Ridge were approached, and community concerns raised at that forum included: (i) ash and smuts from stacks, and (ii) river water quality. Through the Project's environmental investments under this transaction, the Company is taking steps to address these reputational risks.

4.1.i External Communication and Grievance Mechanisms

The Company has in place a grievance mechanism to receive and address any Project related grievances. It is comprised of a community hotline, a Facebook page, a grievance booth (located at the entrance of the mill), and a web-portal on its sugar industry website that is designed to receive anonymous concerns. The portal guides on the acknowledgement, investigation and the feedback expected from a complaints submission. Public dissemination of the grievance mechanism is made through the Company's industry newsletters and social media pages.

4.2 Labor and Working Conditions

The Project's activities will involve some civil works and construction, and the Company anticipates a range of 80 – 100 workers at its peak, and sub- contractors may bring specialized technicians. No migrant workers are employed at BSI. The Company has 712 direct employees and 98 contracted employees. Contracted employees are expected to increase by about 10 workers under the Project. Annual inspections on labor and OHS matters are done by the Belize Labor Department. The Company's administrative makeup is 90% women and 10% men. Middle management is 10% women and 90% men, and at the senior leadership levels, 5% are women and 95% are men. Women make up around 1% in non-traditional roles (cane farmer women).

[5] Regulation 18 of the "Environmental Assessment Regulation, 1995", Belize.

4.2.a.i Human Resources Policies and Procedures

BSI has adopted a Human Resources ("HR") Policy. Belize is a signatory to the International Labour Organization ("ILO") and the Policy ensures full respect of Belize's labour regulations.[6] The HR Policy covers terms of employment, such as; wages and benefits, hours of work, overtime compensation, maternity, vacation, non-discrimination, sexual/moral harassment, hiring period, compensation, promotions, salary increases, and termination of contract procedures. The Policy is effectively communicated to all employees during recruitment. In addition to the HR Policy, ASR Group implements additional procedures that relate to workers' rights including: (i) a Human Rights Statement, (ii) a Human Trafficking Policy, and (iii) a Code of Ethics and Business Conduct.

4.2.a.ii Workers' Organizations

Workers are associated with the Belize Worker's Union ("BWU") and the most recent collective agreement was reached in July 2018 (until 2022). The BWU is the bargaining agent for all permanent hourly-paid employees of BSI, and represents 229 employees from a total of 712.

4.2.a.iii Retrenchment

As part of the Project's logistics aspect, there will be a reduction in workforce of roughly 45 persons. No other retrenchment has occurred in the past two years.

4.2.a.iv Grievance Mechanism

BSI has an Internal Grievance Mechanism SOP that is used to receive, acknowledge, assess, investigate, respond to, appeal and closing out complaints or grievances from its employees in a timely, fair and consistent manner. It is applicable to all Departments at the Company, and outlines: (i) methods for lodging a complaint (anonymous third-party hotline, suggestion box, letters and emails), (ii) review and investigation protocol, (iii) documentation process, and (iv) feedback form details.

4.2.a.v Child Labor and Forced Labor

The Company has a policy statement against the use of both child labour and forced labour at its operations and for its contractors and sugar cane suppliers. In 2018, ASR signed a Memorandum of Understanding for joint collaboration with Fairtrade International and the Coordinadora Latinomericana y del Caribe de Pequeños Productores de Comercio Justo ("CLAC") to address vulnerabilities of children, youth and adults in labor situations, and enable increased protection in the sugar cane industry. Follow ups on sustainability practices with sugar cane suppliers is done through the Fairtrade certification.

[6] Belizean ILO conventions cover (i) forced labour, (ii) freedom of association and protection of the right to organize, (iii) right to organize and collective bargaining, (iv) equal remuneration, (v) discrimination convention, (vi) minimum age convention.

4.2.b Occupational Health and Safety

BSI will manage OHS matters for the Project primarily through its EHSIMS, which is supported by several SOPs and work instructions, data capture and monitoring systems (e.g. Risk Registrar, Safety Metrics, etc.) and EHS Departmental committees. The mission of the EHS committees is to establish and achieve defined EHS objectives and targets in line with the facility's EHS vision and core values.

The Company follows a layered control against hazards that includes: (i) direct risk elimination or isolation via several control mechanisms, (ii) the use of personal protective equipment ("PPE"), (iii) a task-based risk assessment; (iv) a risk inventory, (v) a risk matrix, and (vi) a corrective actions system. To assess and reduce the potential for injuries at the mill, the Company has prepared a *Report on the OSH Risk Assessment Process at BSI's Sugar Mill*, that utilized this layered approach. To manage potential OHS risks under the Project's construction activities, the Company will apply its EHSIMS, which is also applicable to third-party contractors.

BSI has a monthly scheduled training programme for employees and suppliers which addresses several EHS issues, including (i) hazardous work environments, (ii) agrochemical use, (iii) use of PPE, (iv) waste separation, and (v) chemical handling and proper storage, among others. The Company established a cane relations program in 2014 to manage training needs for production improvement. BSI has mainstreamed its EHS system through the publication of a *Best Cane Farming Practices Manual*.

To safeguard agricultural workers from risks (e.g. heat stress, cuts during harvest,) the Company has a Manual Harvesting and General Field Work SOP that includes: (i) procedures for safe cutting and harvesting, (ii) PPE requirements and (iii) a Shade, Hydration and Rest Program. For industrial workers (at the boilers, and evaporators, etc.), the Company applies a Health Illness Prevention Program for Industrial Areas SOP that includes a Heat Stress Prevention and Hydration Program that identifies high risk areas and outlines preventative control measures. Both SOPs include a training component. The Company has recorded a low range of lost time accidents (10 - 15) over the past two years, and currently has a Key Performance Indicator ("KPI") to reduce Health and Safety ("H&S") recordable rates from 1.7 (set in 2020) to 1.5 (for 2021).

4.2.c Workers Engaged by Third Parties

During harvest season, BSI contracts harvesting, cane and sugar transportation services to roughly 130 workers and this number is expected to decrease under the Project. At the mill, the Company contracts the transportation of filter press mud, ash from boilers and containers to the Port of Belize. At the moment, contractors are transporting sugar to the Big Creek Port. Roughly 40 - 45 persons are hired by the contractors for these activities. This amount is expected to decrease by about 25 with the Big Creek Logistics Project. Grounds keeping and janitorial services are also contracted. BSI ensures that contractors adhere to its EHS policies, via its vendor forms. The Company also has Contractor Rules and Regulations for contractors and it includes the communication of relevant EHSMS information and trainings.

4.2.d Supply Chain

BSI's operations are 90% dependent on out grower sugar cane supply. Ninety percent of BSI's independent farmers are small holders with farm sizes less than 8 hectares ("ha"), of which 35% are less than 2 ha. 1,000 women are independent cane suppliers to the Company. BSI has a Supplier Code of Conduct and an Ethical Sourcing Policy that requires suppliers to: (i) comply with local laws and regulations (including working hours, compensation, OHS, etc.), (ii) prohibit child labour, and (iii) observe human rights.[7]

A 6.7% self-supply is estimated at BSI's operations for 2019 and 2020 and the remaining percentage will be provided through small holder farming collectives. To benefit from Fairtrade premiums on sales of sugar, Small Producer Organizations ("SPOs") and their members comply with the Fairtrade Standard (audited annually). This ensures that they run their SPOs and their farms sustainably, ethically, transparently and democratically. Fairtrade Premium Funds have been used to improve H&S awareness of in the cane fields and at home. Additionally, funds have been used to support first-aid training and the distribution of first-aid kits to be taken out to the cane fields during the harvest, to ensure that anyone injured during harvesting is treated quickly.

4.3 Resource Efficiency and Pollution Prevention

4.3.a Resource Efficiency

BSI practices resource efficiency through continuous improvement of its processes, and the selection of equipment and energy sources. The primary source of energy at BSI comes from the BELCOGEN's two bagasse-fired boilers that provides the Company's needs for 10 months of the year (including the milling season). Energy is also purchased from Belize Electricity Limited ("BEL") for 2 months to allow the Company to perform routine maintenance on its boilers and turbines. Bagasse is the only fuel used in boilers and 0.31 KWhr/MT of raw materials are used (per ton). For each boiler, the heat input is 288, 513, 636 Btu/hr, with an annual run time of 5760 hours (or 240 days). Bagasse availability is not an issue for BSI.

Sustainability KPIs have been developed by the Company to include: (i) a reduction of GHG Influence by roughly 2000 MT though optimization of the facility (with a potential addition of 10,000 MT) by 2025, and (ii) monitoring and reduction of water consumption within the next 5 years, among others. The Company uses web-based sustainability dashboards to identify GHG, water, and waste influences against baseline values. Metrics are used to improve the Company's performance as it aims to meet a 2030 objective. Sustainability reports on BSI's operations are published through the corporate office. The Company has been involved in other sustainability initiatives[8] to improve cane farming, training and quality control at its operations via its CFR Department. Additionally, the Company is exploring energy efficiency technology for BELOCOGEN facility, to be supported by IDB Invest.

[7] As set forth in The United Nations Universal Declaration of Human Rights.

[8] In (i) 2015 to establish sugar cane quality testing at the mill, (ii) in 2016 to deliver a Farmer Field School program with Sugar Industry Research and Development Institute ("SIRDI"), (iii) in 2016/2017 to deliver a mechanical harvesting pilot project which saved farmers an average of $7/ton.

4.3.a.i Greenhouse Gases

BSI accounts for its greenhouse gas ("GHG") emissions using a Green House Gases & Carbon Footprint Reporting Procedures SOP that forms part of its Sustainability Plan. Accounting is undertaken using *ASR's Global Operations Carbon Footprint Methodology* developed in accordance with the World Resources Institute ("WRI") and the World Business Council for Sustainable Development ("WBCSD") *2004 GHG Protocol, Corporate Accounting and Reporting Standard for GHG Emissions.*[9] BSI's operations produce more than 25,000 tonnes of CO_2-equivalent annually and the Company will continue to submit its annual GHG reports. To reduce its carbon footprint, the Company is currently undertaking green harvesting initiatives and other sustainability products as part of its Sustainability Plan. BSI is also considering other measures, such as optimizing mill activities and the installation of a biomass dryer. New ESPs are being placed in the boiler house and will have an anticipated benefit on efficiency of about 5% on GHG emissions.

4.3.a.ii Water Consumption

Water use by BSI does not affect communities' use of the resource and the Belize agriculture department has taken steps to decrease the amount of water abstracted from underground aquifers. The Company has 10 abstraction licenses for groundwater (200ft.), and eight abstraction licenses for surface water,[10] the largest volume of which comes from the New River for plant use at a velocity of 1.34m^3/s, using 5 pumps at a rate of 11,016,000 gal/d per pump. The current specific freshwater demand per ton of raw material is 49,994 gal/ton of sugar, and the Company generates approximately 374,766 tons of bagasse per annum. Currently the Company has two wells at Chain Pine Ridge and one is not currently in use. Flow meters were installed in the wells and a log is updated monthly. Reports of water volume usage are sent to the Hydrology Unit of the Ministry of Natural Resources.

Sugarcane requires between 1100 mm to 2100 mm of rain spread evenly throughout the year, which is equivalent to 11,000m^2 to 21,000m^2/ha. For a good crop, this is around 1500mm. Mean rainfall is 1127mm at Corozal and 1336mm at Orange Walk over the last 5 years and indicates adequate irrigation. At BSI, rainwater is channeled through drainage system that allows water to settle along the cane fields, keeping the ground moist. The Company is active in water conservation and water is recycled during the sugar milling and processing, contributing to an efficient "zero balance" of resource use. In 2016, the Company conducted an internal water audit and recommendations have been used for optimization efforts.

4.3.b Pollution Prevention

Air emissions in sugar manufacturing facilities like BSI's, primarily consist of particulate matter ("PM") generated from bagasse-fired steam boilers, dust from unpaved access roads and areas, and sugar drying or packing activities. The most significant pollutant emitted is PM followed by sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x") from flue gases released from boiler stacks. The two boilers installed at BELCOGEN operate at a maximum of 90 mt per hour at 6.3 MPa, and fall between

[9] http://www.ghgprotocol.org/standards/corporate-standard

[10] Water Abstraction Licenses are granted by the Government of Belize National Hydrological Service, Ministry of Natural Resources.

50MW to 200MW heat input. As of December2009, a single stack is utilized for the release for flue gases from the boilers. The stack currently utilizes two ESP emission control devices.

Under the ECP, the Company is required to: (i) prepare and implement an air quality monitoring programme to include point source sampling for $PM_{2.5}$ and PM_{10}, NO*, SO, CO* and ambient air quality sampling, (ii) annually test emissions from the stack, and (iii) undertake a monthly stack opacity test. These provisions are covered under the Company's SOP for Stack Emissions & Ambient Air Quality Monitoring, which also includes: (i) roles and responsibilities, (ii) training, (iii) documentation and evaluation procedures.

Historically, the Company has had challenges in meeting compliance with national and World Bank Group ("WBG") EHS Guidelines limits for PM. A 2019 point-source emission test for air quality revealed high quantities of PM at the stack. Ambient air quality results undertaken in the same year were within national limits. BSI stipulates that high PM emissions are greatly impacted by the high moisture levels of the bagasse and ambient environmental conditions. Improvements to the system are being addressed through the Project's activities to replace the existing ESP systems with a two stage control device (dry centrifugal PM removal, followed by a wet cyclonic system).

To determine influence of stack emissions on nearby communities, BSI prepared a *PM_{10} Air Dispersion Modelling Report* in 2019 to predict downwind pollutant concentration to sensitive receptors, such as nearby communities. The report predicted air quality compliance under World Health Organization ("WHO") guidelines for modelled results of up to 350 mg/Nm^3. BSI has indicated that one emission testing point will exist within each boiler configuration after ESP replacement and stack testing will be done semi-annually. To comply with WBG EHS Guidelines for air quality, BSI will install air emissions control equipment and prepare a corrective action plan (if guideline limits for air quality are exceeded). The Company will also submit regular air quality monitoring results to IDB Invest.

The types of liquid effluent waste produced by the Company are process, non-contact cooling water, stormwater and sanitary water - the last of which is managed by internal septic systems. Process, stormwater and non-contact cooling water are discharged into the New River. Process waters (from bagasse and filter press mud from the mill) are controlled via an on-site anaerobic wastewater treatment facility using the Company's treatment and buffer ponds. The ponds are treated with effective microorganism ("EM") with a retention time of approximately 28 days, and aerators are used to assist in aerobic digestion. This waste-water first goes through a Buffer Pond, followed by a series of four treatment ponds for further retention and is discharged from the last pond after the water quality is tested. The wastewater then passes through a series of cooling ponds prior to discharge into the river. Effluent is periodically discharged into the main drain, mixing with warm water used for the vacuum system on the evaporators. Non-contact cooling water passes through a cooling tower and then the cooling ponds and then into the New River. About 121, 524 m^3 of non-contact cooling water and 515 m^3 of process water are returned to the river daily.

Under the ECP, the Company is required to monthly: (i) monitor all effluents and submit a yearly characterization, and (ii) implement a Water Quality Monitoring Programme for effluent and the

New River (at a minimum of 5 locations[11]) to assess water quality parameters that include (and are not limited to) temperature, pH, Dissolved Oxygen, BOD_5 ,COD, sulphate, Total Dissolved Solids ("TDS"), chlorine, phosphate, and nitrate. The Company will conduct a comparative water quality assessment of the BELCOGEN plant's influent and effluent point sources in the New River to include total fecal coliform bacteria results .

An effluent quality test at the Company's Factory Cooling Pond Outlet in 2020, revealed high values for sulphates and significantly high values for total coliform bacteria compared to WBG EHS Guideline limits and the Company's Sugar Processing Effluent Limits. A recent effluent quality test (June 2021) at the same location also revealed non-compliant values for temperature and Confluent Growth ("CG") for total coliform values. The Company speculates that elevated values for total coliform bacteria are also attributable to the existing water quality of the river, but this has not been confirmed with an inlet analysis. BSI indicated that meeting its temperature regulatory requirements is a challenge, and completion of the Project (i.e. renovations to effluent ponds and cooling facilities) are aimed at meeting compliance limits. As part of IDB Invest's Advisory Service[12], a Clean Production Audit[13] was undertaken to analyze water discharge quality and provide recommendations. Using the findings from the Audit, the Company will prepare and submit a corrective action plan to meet WBG EHS Guidelines Effluent Levels for Sugar Manufacturing .

4.3.b.i Wastes

Procedures to manage the generation of solid waste on the Project are in the Company's solid waste management plan ("SWMP") SOP. It includes provisions for: (i) waste classification and labeling, (ii) collection zones, (iii) roles and responsibilities, (iv) recyclable material, (v) reusable materials, (vi) hazardous waste, (vii) municipal solid waste, (viii) training, and (ix) documentation and evaluation of practices, among others. Workers handling waste are properly trained. Mill mud (solid organic waste) is applied to the fields as organic fertilizer and ash is stored at an offsite location approved by the DOE.

Non-hazardous wastes are municipal-based or recyclable materials (e.g. rubber, scrap metal, etc.). Recyclables are sold to interested parties, and municipal wastes are disposed of via a government authorized waste management contractor to the Mile 24 Regional Landfill, managed by the Belize Solid Waste Management Authority. The smallest quantity of wastes generated at BSI are hazardous wastes, and these are sent to an authorized company for management. Suppliers of pesticide materials manage the disposal of empty pesticide containers. The bulk of BSI's wastes come from the processing of sugar cane (bagasse), which are currently used to fuel BELOCOGEN's steam boilers.

4.3.b.ii Hazardous Materials Management

The hazardous materials present at BSI's facility consists of cleaners, oil and grease, absorbents, batteries and fluorescent light tubes. All these are handled separately, stored in 55 gallon drums or wooden boxes, labeled in accordance with acceptable practices, and disposed of by a private

[11] Sampling points as identified in the EIA.

[12] Value Chain Opportunities and Climate Resiliency for Sugar Cane Farmers in Belize, (2020), IDB Invest.

[13] As described under the deliverable "Task 2 A: Develop an action plan with Climate Smart agriculture for Sustainable Farming."

company (approved by the DOE). All hazardous waste are collected using bins at different locations in the facility and then sent to the transfer station where they are temporarily stored until final disposal. Used oil is sold to interested parties, when possible. The Company follows local regulations for storage, handling and treatment of hazardous materials, and any hazardous wastes generated under the Project will be managed by the SWMP SOP.

4.3.b.iii Pesticide Use and Management

BSI uses mineral fertilizers and manual and chemical weed control practices, and it relies on the local authority (Pesticide Control Board) for the certification of pesticide applicators. The Company has implemented integrated pest management ("IPM") system for the control of the froghopper (*Aeneolomia spp*.), which accounts for 30% reduction in yield. The IPM includes: (i) nymph and adult population monitoring, (ii) cultural practices, (iii) mechanical control, (iv) biological control, and (v) chemical control (only as last resource). The Company does not use active chemical ingredients listed under Class Ia (Extremely Hazardous) and Ib (Highly Hazardous), based on the WHO's Classification of Pesticides by Hazards. Some WHO Class II pesticides are included in the IPM system and in weed control, and adequate PPE based upon Material Safety Data Sheets ("MSDS") is provided to employees. Voluntary medical check-ups are conducted periodically and persons engaged in pesticide application are rotated. No persons above 50 years of age engage in pesticide handling. Aerial applications are used for ripeners, insecticides and fertilizers and the Company has an Aerial Application SOP that establishes the steps required to apply these and BSI will update the Aerial Application SOP, to include procedures to demarcate the boundaries of target areas and all possible nearby communities, livestock, and rivers in the flight plan in order to avoid contamination to sensitive receptors.

Employees who handle pesticides are trained specifically in the use of adequate PPE, integrated into the EHS procedures. Under the use of Fairtrade Premium Funding, training has also been given to farmer group leaders on the proper storage and handling of pesticides, best practice field management and pest control.

4.4 Community Health, Safety and Security

4.4.a Community Health and Safety

Although communities are not immediate neighbors to BSI's facility, community areas within the Project's area of influence can potentially be impacted by increased traffic from heavy vehicles transporting sugar cane. BSI has several SOPs used to minimize transport risks. The Company's Risk Assessment for Transportation of Sugar cane lorries SOP outlines: (i) risk assessment steps, (ii) potential risks, (iii) risk assessment matrix, (iv) checklist of control measures (including speed limits), and (v) additional control measures (e.g. signs, seminars, law enforcement, etc.), among others. Additionally, the Company has an SOP to guide on Safe Transport that includes: (i) drivers' licensing requirements, (ii) vehicle safety inspections, (iii) use of safety devices, (iv) proper loading and maneuvering techniques, (v) access denied protocols and (vi) documentation and evaluation procedures. To safeguard its own drivers and materials, the Company uses a Security Personnel SOP to prevent against emergency situations (e.g. robberies, road accidents, etc.). To ensure that safe

transport processes are followed by all contractors, the Company will include a traffic and driving safety procedure in its transport contractual arrangements.

BSI has one water quality monitoring site for drinking and process water at Chan Pine Ridge on the facility's premises. Water quality results indicate that drinking water is safe for consumption, as annual samples showed compliance with WBG EHS Guidelines limits for fecal coliform bacteria, pH, total aluminum, ammonia, and nitrate (as NO_3). Weekly samples for coliform bacteria were also within compliant ranges under the same Guidelines.

4.4.a.i Community Exposure to Disease

The major health risk likely to affect workers on the Project is exposure to the COVID-19 virus (due to the worldwide pandemic). There have been recorded COVID-19 cases at BSI, and to mitigate against pandemic related disease, the Company has been implementing control measures such as: (i) conducting risk assessments on suspected cases, (ii) instituting quarantine protocols for probable cases, (iii) screening requirement at points of entry, (iv) enforcing mandatory mask use, (v) enforcing social distancing, and (vi) applying sanitization measures throughout the facility.

The Company also monitors and manages the likelihood of Chronic Kidney Disease ("CKD") on its operations. CKD is most prevalent amongst those working outdoors doing strenuous manual labor, such as sugar cane harvesting. To mitigate against CKD, BSI is developing an Integrated Programme for Prevention of Chronic Kidney Disease for all sugarcane cutters and field workers. It includes: (i) continuous data collection, (ii) operational measures for hydration, shade and rest, (iii) yearly screenings (targeting CKD testing), (iv) an awareness and education wellness program, (v) CKD prevention program, and (vi) farmer advocacy and project development with the local Ministry of Health and Kidney Association. Aspects of the Programme are currently being implemented on a phased basis (e.g. training, SOP development, public awareness, agreement with harvest group and cane cutters, etc.) and the Company will continue to report on the status of development and implementation of the Integrated Programme for Prevention of CKD.

4.4.a.ii Emergency Preparedness and Response

The Company's EPP SOP currently has provisions for Engagement of Cane Farmer Organizations and Communities in the event of an emergency, and this will be applied to the Project. The SOP includes: (i) a hotline number, (ii) types of assistance that the Company's Security Department can render, and (iii) a basic communication and response procedure. Dissemination of emergency information is achieved with flyers to all Cane Farmers Associations and broadcasts over the local communication channels/media houses to communities.

4.4.b Security Personnel

The security personnel at BSI's facility are not armed. Private security is contracted at two locations: BSI's Staff Club and at the Big Creek Port. BSI is currently developing an SOP with local government security forces, and its current vetting system requires that all security personnel must have a background check on file that shows no record of human rights abuse. To document and implement

its procedures to contractors, the Company will prepare guidelines on the hiring of security personnel that align with the principles of proportionality and good international practice[14] in relation to hiring, rules of conduct, training, equipping, monitoring of such workers, and applicable law.

4.5 Land Acquisition and Involuntary Resettlement

A 4.6 acre compound will be leased at Big Creek Port for the logistics aspect of the Project, and this is already owned by Toledo Enterprises Limited. It is unoccupied and therefore the Project does not require any land acquisition and will not involve any involuntary resettlement or produce any involuntary economic displacement.

4.6 Biodiversity Conservation and Natural Habitats

BSI's facility is not in any Key Biodiversity Area ("KBA") or designated Protected Area ("PA") and the land to be used at Big Port Creek has previously been converted for industrial use. The entire region to the west and north of BSI's facility has been completely transformed into agricultural enterprises, such as sugarcane, horticulture and cattle pastures. Immediately to the east is the New River, marginal swamp and forest vegetation.

4.7 Indigenous Peoples

No indigenous peoples are in the Project area.

4.8 Cultural Heritage

4.8.a.i Chance Find Procedures

Belize has a rich history of ancient Mayan settlement and heritage. As the Project will involve expansion/excavation activities, Company's Cultural Heritage SOP and Chance Finds Form and Surface (Chance) Find Database will be used to avoid and manage any adverse impacts to cultural heritage in the event that artefacts of significance are found. The procedures have been developed with the local Institute of Archeology ("IoA") and apply to all Departments.

5. Local Access of Project Documentation

The documentation relating to the project can be accessed at the following contact:

Mr. William Neal (Government Affairs and Communications Officer) and Ms. Susana Castillo (Project Assistant), Belize Sugar Industries Limited.
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[14] Voluntary Principles on Security and Human Rights Training.