

## Environmental and Social Review Summary (ESRS)

<b>Project Name:</b>	Banana plant-based economic revitalization to mitigate climate change, bring back a natural fiber raw mater
<b>Project Number</b>	GU-G1021
<b>Project Location:</b>	Guatemala
<b>Executing Agency:</b>	ESG BRANDS
<b>Type of Operation:</b>	Contingent Reimbursable Investment Grant (“CRIG”)
<b>ESRS Issuance Date:</b>	June 2024

### 1. General Information of the Project and Scope of IDB Lab’s E&S Review

ESG Brands (“EB” or the “Company”) envisions a green-degumming processing technology approach that integrates the banana plant waste from Guatemala’s agribusiness sector into the textile industry’s supply chain. By recycling banana waste into fiber, ESG aims to replace 10% of the cotton volume with banana fiber, while ensuring carbon is kept in circulation longer. The Company will work in partnership with Grupo Atos (EX-Agricola San Jose), Magic Group and Paradigma, and AgExport.

The purpose of the TC is to finance CAPEX investments (machinery and product development supporting degumming technology) and OpEx (labour hiring for logistics, processing, and consulting and engineering) in connection to ESG Brands’ new factory (the “Project”). The Company is still in the process of determining the factory’s location, most likely at the periphery of Guatemala City.

### 2. Environmental and Social Categorization and Rationale

This is a category B project, according to IDB’s Environmental and Social Policy Framework (“ESPF”), because it can have limited, specific environmental and social impacts that can be avoided or mitigated by adhering to generally recognized Environmental and Social performance standards, good international industry practices, environmental, health and safety (“EHS”) practices, and design criteria as described in the following sections.

### 3. Environmental and Social Risks and Impacts

The potential Environmental and Social (“E&S”) risks and impacts associated with the Project activities include: (i) child/forced labor in the supply chain (ii) adequate working conditions including occupational health and safety (“OHS”) for direct workers and those in the supply chain (iii) potential land use change/deforestation in the supply chain; (iv) water use and energy use (v) monitoring and management of air emissions, waste, wastewater; (vi) hazardous materials use of chemicals; (vii) potential impacts on communities and indigenous peoples.

The environmental and social desk due diligence indicates that the Project will have impacts, which must be managed in a manner consistent with the following Environmental and Social Performance Standards (“PS”): PS 1 - Assessment and Management of Environmental and Social Risks and Impacts; PS 2 - Labor and working conditions; PS 3 - Resource Efficiency and Pollution Prevention; PS 4 - Community Health, Safety and Security; PS5 - Land Acquisition and Involuntary Resettlement; PS 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS 7 – Indigenous Peoples; and PS 9 - Gender Equality

### 4. Environmental and Social Context

Contextual risks include environmental and social supply chain risks, natural disasters (earthquakes, hurricanes with resulting landslides and flooding), child labor in banana operations, potential deforestation

and other threats to natural resources, water availability (water is at a premium in Guatemala), climate change, chronic kidney disease (CKD) gender and workplace exclusion.

## **5. Environmental and Social Risks and Impacts and Proposed Mitigation Measures**

### **PS 1 - Assessment and Management of Environmental and Social Risks and Impacts.**

As part of this transaction, EB will develop and implement a PS1-compliant Environmental and Social Management System (ESMS) and submit examples of its implementation (such as E&S due diligence reports, E&S screening tools, and E&S risk management procedures), together with an annual report to IDB Lab.

Policy: The overarching corporate policy statement must be updated to align with PS 1 requirements. As part of the update, the Company must implement a sustainability sourcing policy describing ESMS procedures needed to ensure sustainable procurement of pseudo stems at each origin of banana sourcing. EB will develop a Supply Chain Policy that will exclude the purchase of banana pseudo stems known to be produced breaching national environmental and social legislation (harmful child labor, illegal deforestation) and/or violation of Environmental and Social Performance Standards. The Company will present to IDB LAB for review a copy of the supply chain policy and management procedure and will include this supplier code of conduct in all contractual agreements with suppliers. The policies will be communicated internally to project staff and externally to all stakeholders, including business partners and contractors.

Identification of Risks and Impacts: The Company is yet to develop and Environmental Impact Assessment (“EIA”) for the Project, which is required under Guatemalan law as part of the permitting process. EB will develop and implement a risk evaluation and prioritization methodology that allows the identification and management of risks and impacts on its overall operations and those in the supply chain. The risk matrices will assess environmental and labor risks (construction, processing operations, and supply chain), and potential impacts on habitats and communities. The matrices will include updates for risks and impacts due to changes during processing technologies. Once the site for the processing plant is identified, EB must provide IDB LAB with an update on potential overall risks and impacts.

Management Programs: The Company will need to develop and implement formal, written ESMS procedures to avoid, minimize, and manage identified E&S risks and impacts, including those related to the supply chain. Furthermore, to avoid impacts on biodiversity and ecosystem services or livelihoods, EB will operationalize the supply chain policy statement to exclude suppliers involved in land conversion, into a management system procedure (ideally including satellite imagery, land use maps, etc.).

Organizational Capacity and Competency: Going forward, EB will be required to appoint a person to manage environmental and social issues. Additionally, the Company must hire a qualified technical person (either as a direct employee or consultant) to oversee OHS management during the construction and operation phase of the processing facility.

Emergency Preparedness and Response (“EPR”) Plans: The Company shall develop EPR plans and procedures to manage all emergency scenarios (e.g., earthquakes). In preparing the EPR plans, EB will incorporate topics identified during the analysis of E&S risks and impacts, including unexpected hazard events. The emergency plans for the processing plant must cover possible unplanned scenarios such as fires, chemical spills, and medical emergencies. Must include emergency contact information, and communication procedures. Additionally, the plans should include the availability of emergency equipment, employee training, and periodic drills to test readiness and capability to execute emergency response procedures.

Stakeholder engagement and External Grievance Mechanism: The Company must implement and disseminate transparent E&S communications and reporting with external stakeholders in appropriate ways. Going forward, all stakeholders including indigenous peoples must be identified, listed, and engaged. A management system procedure should be developed for appropriate stakeholder engagement. The External Grievance Mechanism (EGM) must be publicized for external communications with general

stakeholders (communities, Indigenous Peoples, and other stakeholders), to accept and act upon their potential grievances. All grievances publicly or anonymously resolved, must be recorded by EB and presented in the Annual Report to IDB LAB.

Monitoring and Review: The Company will need to develop a monitoring procedure to evaluate the effectiveness of its ESMS, including the creation of Key Performance Indicators (“KPIs”) for critical environmental, labor, and social issues. This procedure will outline the monitoring process, including frequency, responsibilities, and internal audit protocols. The KPI list will include, but not be limited to, the number of women trained, percentage of women in key managerial roles at EB, accident statistics, the ratio of total annual lost time due to accidents to total hours worked, the number of labor-related complaints, incidence of child labor (aiming for zero), the number of reports on potential land conversion/deforestation, GHG emissions accounting and reduction monitoring, carbon sequestration, external water use (m<sup>3</sup>), water consumption/recycled in the processing facility (m<sup>3</sup> per kilogram of processed produce), energy consumption, effluent quality discharge from the processing plant, reduction of solid waste disposal, and the number of environmental and social complaints from communities.

## **PS 2 - Labor and Working Conditions**

The Company plans to engage 15 employees for manual decortication, with an estimated total workforce of 35 to 75 people for the plant. EB will have a Plant Manager, Plant Leader, and Maintenance staff. The technical director will serve as the liaison with IDB LAB. Equal employment opportunities are expected for women, who should receive similar benefits as men. All new employees at EB must undergo induction training that covers policies, guidelines, environmental and social issues, and work procedures in detail. The training will also include information on national labor regulations and PS2.

Human Resources (“HR”) Policy: EB must develop and implement an HR Policy. This policy must be communicated to all employees during induction and cover terms of employment, including wages and benefits, hours of work, overtime arrangements and compensation, annual and sick leave, maternity leave, vacation or holiday, non-discrimination, sexual/moral harassment, work/life balance, hiring period, compensation, leave, promotions, salary increases, termination procedures, and conflict of interest. It shall also include provisions for respecting the culture of indigenous workers.

Protecting the Work Force: Child labor and forced labor are contextual risks in banana field operations. EB must develop a policy statement against using child or forced labor, stating that it will only hire direct or temporary employees aged 18 years and older and will only hire migrants legally authorized to work. For its suppliers, EB plans to base its child and forced labor monitoring on certifications acquired by its partner banana producers in procurement contracts with large traders or banana brands. The Company must implement a “Child Labor and Forced Labor Monitoring Action Plan” in its supply chain to prevent the use of child or forced labor by suppliers during field operations and cease procurement from suppliers found with cases of child or forced labor.

Occupational Health and Safety (OHS): The Company indicates that it will provide general and job specific OHS training programs for employees. Key issues in OHS relate to operations in the processing facility. Also, OHS issues in the supply chain, predominantly during the harvest of bananas when workers are sometimes compelled to manually haul several heavy banana bunches with a cable tied to their waste. An ESMS procedure will be developed and implemented by EB to avoid procuring pseudo stems in farms using this practice. Loading and unloading pseudo stems must be done using adequate Personal Protection Equipment to avoid injuries. Other OHS issues relate to the construction phase.

During the induction period, technical and OHS procedures in its supply chain, construction, and processing plant must be fully explained to workers. OHS practices and statistics, and accident rates must be recorded, cause-effect relations and trends must be analyzed rigorously, and corrective action must be taken to mitigate accident causes and prevent further similar events. The ratio of total annual lost time due to accidents to total hours worked should be reported to IDB LAB. EB will present to IDB LAB the OHS programs and include comprehensive operational procedures with clear OHS guidelines, management programs, and means of protection consistent with the local legal requirements, World Bank Group (WBG)



Environmental, Health, and Safety (EHS) Guidelines, and any stipulations from future certifications obtained.

Life & Fire Safety ("L&FS"): For the new processing facility EB will present to IDB LAB, before construction, the L&FS engineering design and master plan of the facility. The design will comply with international Life and Fire Safety Standards, such as NFPA. Smoke detectors, fire alarms, and fire extinguishers will be properly maintained at regular intervals.

Internal Grievance Mechanism (IGM): The Company must implement a PS2-aligned internal grievance procedure for employees, including the requirement to provide feedback on anonymous grievances, and the specific steps for workers to raise any concerns, as well as the contact name of the person responsible for providing feedback on grievance resolutions. It should indicate that there will be no retaliation. The IGM procedure should be communicated to all employees during induction.

Workers' Organizations: Freedom of workers to form or belong to unions is a right that is legally guaranteed in Guatemala, and EB shall inform all employees that it will respect the national and PS2 freedom of association requirements.

Workers contracts: EB must ensure employment contracts in its processing operations. Additionally, the company shall incorporate strict protections against child/forced labor into their procurement contracts, as they operate in a market where such a risk exists.

### **PS 3 - Resource Efficiency and Pollution Prevention**

The processing of banana pseudo stems involves manual decortication, cutting and carding fiber, wet processing in reactors with specific chemistry, rinsing, drying, carding, and baling. The Company claims that utilizing banana fiber reduces agricultural waste and carbon emissions from plant degradation, promoting a circular and sustainable approach to resource utilization.

Resource Efficiency: Energy for the processing facility is expected to be obtained from the national grid. EB will install biomass boilers (50 HP high-pressure steam) for steam and hot water. The Company will reportedly also require the use of Diesel. Boiler rooms must include appropriate security requirements. Water will be captured and recycled during decortication. Any additional volume will be obtained from a local water source, unknown until the site is determined. The latter source of water in the identified location should be monitored throughout the project cycle.

Waste: The basic solid waste generated from the banana pseudo stem fiber extraction process includes leaves and pulp, which form the bulk of the biomass. Water used during the fiber extraction process may contain organic matter, fibers, and possibly chemicals, depending on the specifics of the processing methods employed. The Company indicates that the generated biomass will be converted into briquettes for internal use and sales. Additionally, water used in the process will either be reused or treated before being discharged, ensuring that environmental impacts are mitigated. Going forward, EB must develop a comprehensive waste management plan detailing specific actions such as segregation of different types of waste, temporary in situ storage categorized by waste type, and final use or disposal methods for each waste category. For discharged effluents, the Company must implement monitoring protocols to ensure that the quality of the effluent discharged from the processing plant complies with the WBG EHS Guideline.

GHG emissions and Ozone-depleting substances: During processing operations, EB must avoid using ozone-depleting substances (chemicals) and comply with the Montreal Protocol. The processing facility must be equipped to deal with spillage and appropriate personal protective equipment must be made available when chemicals are used.

Hazardous Materials: EB states it will follow the 12 principles of green chemistry (to reduce the chemical-related impact on human health and contamination of the environment). Any hazardous material used will need to be stored and manipulated in accordance with the WBG EHS Guidelines. For Diesel fuel, storage tanks must have secondary containment to prevent and contain spills.

On-farm protocols and TR4: Concerning management of tropical race 4 (TR4) of Panama Disease (caused by *Fusarium oxysporum* f. sp. cubense), and to ensure exclusion of the disease, EB indicates that it will respect and follow protocols when collecting pseudo stems in a similar fashion as fruit brands (such as Dole, Chiquita, Del Monte, et al.,) are required by producers. The Company will develop an ESMS procedure to abide by protocols from APIB (Guatemala Banana Producers' Association) and the advice of the IDB Group Technical note "Tropical Race 4 of Banana Disease"<sup>1</sup>.

#### **PS 4 - Community Health, Safety and Security**

The Company must develop a Security Plan incorporated into a management system procedure for security personnel. Procedural directions will include how security forces will be managed following PS4 requirements. It will also include provisions that all security personnel must have a background check on file that shows they have no record of human rights abuses and have had training in responding to threats guided by the principle of proportionality. EB must establish contracts with trucking operators with trained drivers to minimize transport risks to local communities.

#### **PS 5 – Land Acquisition and Involuntary Resettlement**

The Company will rent land for the construction of the processing facility, a process that shall follow PS 5 free seller/free buyer requirements. Three potential locations are under consideration:

1. Sacatepéquez Dpt – Alotenango or off Highway 14
2. Escuintla Dpt – MICHATOYA PACIFICO off CA9
3. Escuintla Dpt – Tecnopark off CA2

#### **PS 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources**

ESMS procedure to halt potential land conversion of natural and/or critical habitats and collateral effects on biodiversity loss to be avoided in the supply chain and monitored during the project life cycle. Any "slash and burn" farming techniques involving deforestation in the supply chain should be monitored and reported. The supply chain policy must apply to stop procurement of pseudo stems if land conversion is identified.

#### **PS 7 - Indigenous Peoples (IP)**

The Company will identify all IP communities as stakeholders within its area of influence, who may be affected by the project. Adverse impacts of all kinds on IP should be avoided. EB needs to ensure adequate stakeholder engagement if any recognized IP participates in any form of stakeholders.

#### **PS 9 - Gender Equality**

The Company indicates that it will prevent risks and adverse impacts on women. ESG plans to consider training opportunities to improve the knowledge and improved livelihoods of women.

### **6. Environmental and Social Action Plan (ESAP)**

To fully implement the ESAP obligations in line with the ESPS's requirements, ESAP items must be examined with the specific description in the ESRS above, where the problem and avoidance/mitigation measures are fully described.

Topic	Activity	Deliverable	Deadline
ESMS	Develop and implement a PS1-compliant ESMS	PS1-compliant ESMS	1 <sup>st</sup> disbursement (D) + 365 days
Policy	Develop PS1-compliant Overarching Policy	Overarching Policy	D + 60 days

<sup>1</sup> <https://www.idbinvest.org/en/download/10910>

Topic	Activity	Deliverable	Deadline
Identification of Risks and Impacts	Submit the EIA as approved by the Ministry of Environment (MARN)	EIA approved by MARN	As a condition precedent to 1 <sup>st</sup> Disbursement
Identification of Risks and Impacts	Develop a procedure for the identification of risks and impacts.	i) Identification of Risks and Impacts. ii) Risk Matrices	D + 90 days
Management Programmes	Develop and implement formal, written Management Programmes to handle identified E&S risks and impacts	Management Programmes developed	D + 120 days
Organizational Capacity and Competency	<ol style="list-style-type: none"> <li>1. Appoint an E&amp;S Manager</li> <li>2. Hire a qualified technical OHS person for the construction and operation of the processing facility.</li> <li>3. Develop an E&amp;S Training Plan for staff and supply chain workers.</li> </ol>	<ol style="list-style-type: none"> <li>1. E&amp;S Manager appointed.</li> <li>2. Technical OHS person hired.</li> <li>3. E&amp;S Training Plan.</li> </ol>	<p>Condition Precedent to 1<sup>st</sup> disbursement.</p> <p>D + 60 day</p> <p>D + 30 days</p>
Emergency Preparedness and Response (EPR)	Develop EPR plans and procedures.	EPR Plan developed	D + 120 days
Stakeholder engagement	<ol style="list-style-type: none"> <li>1. Develop a ESMS Procedure for stakeholder engagement, including IPs if applicable.</li> <li>2. Develop a Stakeholder Map.</li> </ol>	<ol style="list-style-type: none"> <li>1. Stakeholder Engagement Procedure.</li> <li>2. Stakeholder Engagement Map.</li> </ol>	D + 60 days
External Grievance Mechanism (GM)	Develop an external GM, including a copy of the external communication to the public for dissemination of the GM.	External GM.	D + 60 days
Monitoring and Review	Implement an internal monitoring and review program. The updated program shall add E&S KPIs.	Monitoring and review program implemented	D + 120 days
Supply Chain	<ol style="list-style-type: none"> <li>1. Develop and implement a Supply Chain Policy</li> <li>2. Develop a supplier database (supply chain E&amp;S database monitoring)</li> <li>3. Implement a training program to ensure knowledge of the supply chain policy and procedures to staff, stakeholders, suppliers, business partners, and contractors</li> </ol>	<ol style="list-style-type: none"> <li>1. Supply Chain Policy</li> <li>2. Supply Chain Database</li> <li>3. Supply chain training.</li> </ol>	<p>D + 60 days</p> <p>D + 90 days</p> <p>D + 90 days</p>
Human Resources (HR) Policy	Develop and communicate to all employees in Guatemala its HR Policy	HR Policy	D + 60 days
Child Labour in supply chain	Implement a "Child Labour Monitoring Action Plan" and report the results of its monitoring in the Annual Report to IDB Lab and GRI.	Child Labour Monitoring Action Plan implemented.	D + 90 days
OHS	Develop and implement OHS manuals and procedures for its operations.	OHS manuals and procedures.	D + 120 days
Internal Grievance Mechanism (GM)	Develop and implement an internal GM procedure communicated to all employees during induction.	Internal GM Procedure.	D + 60 days

Topic	Activity	Deliverable	Deadline
Workers' Organizations	ESG to inform all employees that it will respect the national and PS2 freedom of association requirements.	Proof of information to employees.	D + 60 days
Worker relationship	Ensure employment contracts for all employees and incorporate protections against child labour into procurement contracts.	Contracts of employees implemented.	D + 60 days
Life and Fire Safety (L&FS) Master Plan	L&FS engineering design for the Processing Plant	L&FS engineering design	D + 30 days
Resource Efficiency	Implement monitoring of external water use throughout the project cycle	Water monitoring Plan	D + 90 days
Waste Management	<ol style="list-style-type: none"> <li>Develop and implement a Waste Management Plan.</li> <li>Monitor effluent quality discharged in the processing plant and ensure compliance with the WBG EHS Guidelines</li> </ol>	<ol style="list-style-type: none"> <li>Waste Management Plan</li> <li>Report of Effluent quality</li> </ol>	D + 90 days  Annually after factory starts operations
Hazardous Materials	<ol style="list-style-type: none"> <li>Develop a HazMat Management Plan.</li> <li>Implement secondary containment in the area of Diesel fuel storage tanks to prevent and contain spills</li> </ol>	<ol style="list-style-type: none"> <li>HazMat management plan.</li> <li>Secondary containment implemented</li> </ol>	30 days before operation begins
On-farm protocols and TR4	ESMS procedure to ensure exclusion of tropical race 4 (TR4) of Panama Disease	TR4 ESMS procedure	D + 60 days
Community Security	<ol style="list-style-type: none"> <li>Develop a Community Security Plan for security personnel.</li> <li>Establish contracts with trucking operators to minimize transport risks to local communities</li> </ol>	<ol style="list-style-type: none"> <li>Community Security Plan</li> <li>Contract clauses</li> </ol>	D + 120 days
Land Conversion/ Deforestation	ESMS procedure to halt and report potential land conversion in the supply chain	ESMS procedure	D + 120 days