Environmental and Social Review Summary (ESRS)
PROLADE - Mexico

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

Prolade is a Mexican producer of palm oil that started operations in 2014, at Los Halcones plantation in the municipality of Huimanguillo, in the state of Tabasco, Mexico.

The current operation involves supporting Prolade in financing the planting of *Elaeis guineensis Jacq*palm to produce vegetable oil, which will be processed at Prolade's extraction plant. The Project is divided into three stages: the first aims to plant 2,763 hectares (ha) of cultivation, divided into 12 plots; the second involves the planting of an additional 1,300 ha, and the third anticipates the planting of another 3,000 ha in the following years. It will have a duration of 66 years, with the first three dedicated to site preparation, the next 60 for the operation and maintenance, and the final three for decommissioning the Project.

Prolade obtained the Roundtable on Sustainable Palm Oil (RSPO) certification in 2022. This certification is valid for an area of 3,929.83 ha with a production of 61,505 tons of fresh fruit bunches (FFB), which are categorized as of 'Identity Preserved'[1].

The Environmental and Social Due Diligence (ESDD) included field visits and the assessment of the physical location of the project's farms and facilities, as well as the surrounding areas, including nearby communities, water sources, and sensitive ecosystems. The condition of the land was evaluated, including changes in land use and impacts resulting from the palm oil operation. Plantations, the Extraction Plant, storage area, and waste management facilities were visited.

The ESDD scope also included Prolade's operational and management practices, including waste management, water use, effluent treatment, and compliance with environmental, social, occupational health and safety (OHS), and labor regulations, as well as the company's policies and procedures for environmental and social management, and existing monitoring and recording mechanisms. As part of the reviewed documentation, environmental impact assessments, property titles, permits, and licenses were considered.

The ESDD also included interviews with Prolade staff and stakeholders, including local communities, NGOs, and government officials.

[1] This certification assures that all palm oil byproducts and finished products contain only RSPO palm oil from a single plantation and its subsequent chain members, making sure that they have been isolated from other sources of palm oil along the entire supply chain.

2. Environmental and Social Categorization and Rationale

This transaction has been classified as category A, as per IDB Invest's Environmental and Social Sustainability Policy, given its potential to generate risks and impacts related to: (i) potential impacts on biodiversity, due to the presence of protected areas near the project areas, impacts on the ecosystem services and expansion of palm plantations into new areas; (ii) generation of cumulative impact from existing and planned developments in the area; (iii) risks related to working conditions and the management of OHS aspects; (iv) potential air and water impacts resulting from palm processing.

The Performance Standards (PS) triggered by the Project are: PS1: Assessment and Management of E&S Risks and Impacts; PS2: Labor and Working Conditions; PS3: Resource Efficiency and Pollution Prevention; PS4: Community Health and Safety, and PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7: Indigenous People; and PS8: Cultural Heritage.

3. Environmental and Social Context

3.1 General characteristics of the Project's site

In the municipality of Huimanguillo the Mezcalapa River, coming from the state of Chiapas, the rivers Blasillo and Chicozapote, and the La Venta creek are present. Regarding lagoons, the largest and most important one is Laguna del Rosario, specifically located next to Las Helenas plantation.

About 50 km away from Huimanguillo and 35 km from Teapa, to the north of Chiapas, is the active volcano Chichonal. This volcano erupted in 1982 and spread ashes up to 100 km around.

In terms of seismic activity, the state of Tabasco is in Region B (Region A being the one with the lowest level of activity and Region D with the highest) according to Mexico's seismic zone map.

A total of 82 communities were identified as of the socioeconomic interest within the Project direct influence area (DIA). Most of them are distant from the plantations but included in the analysis for being near certain water bodies, roads to be used to access the Project; and others that are the source of the Project's workforce.

3.2 Contextual risks

The main national contextual risks include a lack of press freedom and transparency, followed by limited access to financing, and the ineffectiveness of public security forces. In relation to the contextual risks associated with the palm oil plantations in Mexico, they include: (i) displacement of small farmers that may generate social conflicts and human rights issues; ii) disputes over land tenure and unequal distribution of benefits, leading to tensions within local communities; iii) labor and human rights concerns; iv) intensive use of pesticides, fertilizers, and water resources leading to pollution, soil degradation, and water contamination; v) fragmentation and alteration of natural habitats affecting wildlife

populations; and vi) the conversion of forests to palm oil plantations releasing significant amounts of carbon dioxide into the atmosphere, contributing to climate change.

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

4.1 Assessment and management of environmental and social risks and impacts

4.1.a E&S assessment and management system

The Project operates according to Prolade's Environmental, Social, Health, and Safety Management System (ESMS), which incorporates policies, risk and impact identification; management programs; organizational capacity and competence; emergency preparedness and response; social actor participation, and monitoring and evaluation. Prolade will update the ESMS to align it with the requirements of PS1.

4.1.b Policy

Prolade has established environmental, social, and Health and Safety at Work policies in compliance with applicable local laws and aligned with the requirements of the RSPO. These policies include key elements required by the PS; however, they need to be updated to consider the World Bank Group's General Environmental, Health, and Safety Guidelines and applicable sector-specific guidelines (Vegetable Oil Production and Processing and Annual Crop Production). The policies should specify those responsible for ensuring compliance and will be communicated at all levels of the organization.

4.1.c Identification of risks and impacts

4.1.c.i Direct and indirect impacts and risks

The Project's Environmental and Social Impact Assessment (ESIA) considers the identification and management of environmental and social impacts, follows international practices, and aims to align with the PS. As part of its ESMS, Prolade will develop a procedure for the continuous assessment of the Project's environmental, social, and OHS impacts and risks, including those derived from the activities of contractors, subcontractors, and suppliers. The procedure will include matrices for continuous assessment of impacts and risks.

4.1.c.ii Analysis of alternatives

Although a second and third phase of palm plantation expansion is anticipated, the alternatives analysis does not present the selected areas for these upcoming phases, and thus, it does not include a location alternatives analysis. Prolade has sought to establish palm crops on previously developed and historically used agricultural lands to avoid the removal of natural vegetation and reduce impacts. The company looks for surfaces with an elevation between 15 and 25 meters (m) above sea level to mitigate flood risks and prefers privately owned lands to avoid potential social issues with *ejidatarios* in the future.

For the extraction plant, alternative areas were not evaluated as the study was conducted with the construction of the plant already in progress. Nevertheless, the choice of the Halcones estate for the construction of the extraction plant considered its strategic location with equitable distance between different owned ranches that supply raw materials, logistical advantages, ease of access, and communication routes facilitating the reception of inputs and construction materials. Additionally, there are no nearby communities directly affected by the activities, nor are there adjacent water bodies that could be contaminated.

The alternatives analysis study includes assessments of the fertigation process, which uses treated effluent for irrigation during periods of low precipitation, reducing the need for fertilizers. Prolade currently has a fertigation pilot project in Halcones, expected to be implemented in all estates in the future. The study also presents efforts to reduce energy consumption in the extraction plant, enhance its energy efficiency, use aerial drones for supervision tasks and delineate flooded areas, explore alternative fertilizers like biol and canavalia (Canavalia ensiformis), and employ biochar to suppress soil-borne pathogen-related diseases.

4.1.c.iii Cumulative impact analysis

An analysis of cumulative impacts was conducted following the methodology established by the International Finance Corporation (IFC) based on the identification of Valued Environmental and Social Components (VEC). A spatial limit for the analysis and a 5-year time frame were defined. The selected VECs for residual impact analysis included air quality, noise comfort, surface water, groundwater, soil, wildlife, and natural vegetation and habitat.

High-priority cumulative impacts were identified for surface water, groundwater, soil, and natural vegetation and habitats. Medium-priority impacts were identified for wildlife. For other VECs, the study only identified low-priority impacts. Based on the results, a Cumulative Impact Management Framework was proposed. The presented cumulative impact analysis for the project is considered robust, aligning with international best practices, and meeting the requirements of PS1.

4.1.c.iv Gender risks

No gender-related impacts have been identified that violate women’s rights in the communities affected by the Project. However, as the Project progresses, changes in the activities may justify a reassessment of these impacts, along with additional mitigations and recommendations to guarantee their continued appropriateness and relevance.

Prolade will sign a declaration of support for the Women’s Empowerment Principles and complete the Gender Gap Analysis Tool (WEP).

4.1.c.v Gender programs

The Code of Ethics and operational regulations state that the inclusion of women in the workforce will occur on equal terms, and sexual harassment is not tolerated. Prolade also has a Reproductive Rights Policy that prohibits discrimination due to pregnancy and ensures fully paid maternity leave. To generate employment, Prolade will develop a procedure as part of the ESMS for gender-focused personnel recruitment, hiring women in Project areas

where female presence is underrepresented and under equal working conditions, ensuring the dissemination and compliance of these measures in recruitment, training, and worker activities. Additionally, another specific procedure will be developed to prevent, report (without the risk of reprisals), and resolve cases of sexual harassment in the workplace, and workers will be trained on the subject.

4.1.c.vi Climate change exposure

According to climate change projections based on the latest report from the Intergovernmental Panel on Climate Change (IPCC), risks have been identified for the country and the state of Tabasco, including increased rainfall intensity, landslides, rising sea levels, hurricanes with greater intensity, seismic activity, volcanic hazards, and heatwaves.

Among the most relevant hazards with a higher probability of occurrence are floods, which can affect crops, delay harvests, damage nitrogen-fixing legumes, hinder the transportation of personnel to work areas, and pose health risks. There is also a risk of delaying the transport of fruit from harvesting areas to the extraction area, potentially resulting in overripe fruit and a lower percentage of extracted oil. Prolade will identify and implement adaptation and mitigation measures for the various impacts that floods may generate on plantations, the extraction plant, and transportation.

The risk of hurricanes was identified in the municipalities of Teapa and Huimanguillo, and their presence, if they occur, is limited to the season from June to November.

The project is considered aligned with the Paris Agreement based on an analysis conducted according to the Paris Alignment Implementation Approach of the IDB Group, framed within the principles agreed upon by Multilateral Development Banks.

4.1.d Management programs

The EIAS proposes an Environmental Management Plan and a Social Management Plan describing mitigation and improvement measures to address identified environmental and social project risks and impacts. This includes air quality, noise, monitoring of surface and groundwater, topography and soils, natural disasters, fauna, flora, and ecosystem services, as well as job creation, local and regional development, strengthening of labor capacities, traffic, noise comfort, dust, community health and safety, and livelihoods.

For the acquisition of new lands, Prolade submitted a document called the Land Acquisition Protocol, stating that the acquired properties are identified as 'rustic,' implying, according to Mexican legislation, that they cannot be used for housing and are intended for livestock use, limiting negative impacts of land-use change. Prolade will update the Land Acquisition

Protocol by supplementing the criteria applied to comply with RSPO[2] ND5, ND6, ND7, and ND8 and document the land acquisition process.

4.1.e Organizational capacity and competency

Prolade established an organizational structure under the General Directorate and led by the Sustainability and Certification Management, consisting of five people with functions, responsibilities, and powers for the ESMS application. The staff has the necessary knowledge, skills, and experience for their work.

4.1.f Emergency preparedness and response

The company has an Emergency Plan outlining methods and procedures to follow in accidents and emergencies associated with the project, covering actions before, during, and after each emergency or natural threat, including fires, earthquakes, hurricanes, floods, and thunderstorms. Prolade will update the plan to include protocols for explosions and road accidents, situations of hazardous product spills, agrochemical contamination, and bites from poisonous animals. It will also identify the bodies to be involved/engaged according to the type of situation, the team and material and technical resources to be kept available, responsibilities, and the need for staff training. The Emergency Plan should make it clear that it includes all possible emergency scenarios for the operation of the extraction plant and estates. Prolade will include how to provide appropriate information to potentially affected communities and relevant public bodies.

The OHS Coordinator is responsible for training personnel in the Extraction Plant and estates on emergency plans, safety work, risks associated with activities, and OHS plans.

4.1.g Monitoring and review

The PGAS establishes Key Performance Indicators (KPI) to monitor and evaluate the effectiveness of various measures to be applied as part of the Environmental and Social Management Plans.

As part of the certification process under the principles and criteria established by RSPO, an annual audit by an independent institution to verify strict compliance with the standard is planned.

Prolade will also develop and implement an Environmental, Social, and OHS Monitoring Procedure as part of the ESMS, including a map with control points to be inspected by sampling by the monitoring team, inspection frequency, a checklist for each subject, aspects

[2] RSPO requires a land conversion procedure; it must be demonstrated that it will not have any negative effects on the primary forests, the high conservation values, the high carbon reserves, the fragile, marginal soils or the land belonging to the local communities and, if converted from other agricultural products, a land use change analysis (LUCA) shall be used, previously approved by RSPO. The next step is to engage in a public consultation; finally, if ancestral territories were affected, a free, prior and informed consent (FPIC) process shall be set up.

to observe in the field, forms for recording minor deviations and identified non-conformities, and the need to establish a corrective action plan for deviations and non-conformities.

4.1.h Stakeholder engagement

Prolade conducted the identification and analysis of social actors, confirming that there will be no impacts on vulnerable groups.

Prolade will develop and implement a Stakeholder Engagement Plan as part of the ESMS, including measures for continuous disclosure of Project information of interest to communities within the AID, civil society organizations, and local authorities. This plan will primarily focus on Prolade activities that may have an impact on the community, including the disclosure of channels for the Grievance Mechanism.

4.1.h.i Disclosure of information

Prolade has a Consultation and Communication Procedure aimed at responding to social actors' inquiries or issues of interest related to Project activities, to convey clear, timely, and concise information.

The Social Responsibility department is responsible for disseminating information. Job announcements for the Project are consistently made with communities within the social impact area to promote local hiring.

As part of the Project's Stakeholder Engagement Plan resulting from the ESIA, Prolade will disseminate the identified impacts, proposed programs and measures, as well as ESMS procedures to communities within the impact area, civil society organizations, and local authorities.

See section 4.1.i.i.

4.1.h.ii Informed consultation & participation

As part of RSPO certification, the study "Characterization of the social impacts generated by the cultivation and industrial processing of palm oil in Mexico, Tabasco" was prepared. This study includes a consultation process with three groups of actors: i) plantation workers; ii) administrative workers of PROLADE; and iii) residents of nearby communities, presenting the opinions of the three focus groups on the company and its relations with the community.

As part of the RSPO certification audit, Prolade conducted a consultation with social actors, considering local authorities, Ejido, Ranchería, and Poblado settlers, confirming that the Project is not expected to cause significant adverse impacts on the communities within its AID.

4.1.h.iii Indigenous peoples

Of the 82 communities in the Project's AID, 25 are registered in the Catalog of Indigenous Localities of the National Institute of Indigenous Peoples (INPI) as having dispersed

indigenous populations. According to INPI data, the number of indigenous people in these 25 communities ranges from 1 to 300, with the highest number in Teapa, with 300 indigenous people, and Chontalpa (Estación Chontalpa), with 161. These indigenous people live scattered in these 25 communities, representing between 0.1% and 8.3% of their total population.

Less than 40% of the population in the 25 communities that are part of the Project's AID is considered indigenous, and only 2 communities, Chontalpa (Estación Chontalpa) and Teapa, have more than 150 indigenous people among their residents (although they represent around 2.2 and 1.1% of the total population, respectively), making these municipalities of interest, according to the INPI[3], classification.

Considering the two communities with the highest number of registered indigenous people, Teapa and Chontalpa (Estación Chontalpa), and the two with the highest percentage of indigenous population in relation to their total population, Enrique Rodríguez Cano (8.3%) and Estación Martínez Gaytán (8%), Teapa is the farthest from the Project. The other three are at distances from Prolade plantations ranging from 2.6 km to 5 km.

During interviews conducted during the fieldwork, community members from Chontalpa and Manuel Sánchez Mármol confirmed the presence of a dispersed indigenous population, who come from Chiapas to work or are passing through. They also reported that no indigenous languages are spoken among community members.

4.1.i External communication and grievance mechanisms

4.1.i.i External communication

Prolade has a Consultation and Communication Procedure to disseminate clear, timely, and concise information that is easily understandable and responds to inquiries from social actors. However, most community members are unaware of Prolade's presence in the area. Prolade will implement external communication measures to mitigate the negative impacts of the Project, including measures to consistently disseminate information of interest to communities within the AID, civil society organizations, and local authorities, primarily information about Prolade activities that may affect the community. This process involves defining key actions, and procedures, and appointing a responsible person.

4.1.i.ii Grievance mechanism for affected communities

The Project has a Procedure for requests, grievances, claims, and/or suggestions (PRGS) for the receipt, analysis, due diligence, communication of resolution, repair, and closure. This Procedure is aimed at both internal stakeholders (i.e., Project personnel) and external stakeholders (i.e., communities within the Project's AID, government institutions, and civil associations), using channels such as physical mailbox, WhatsApp, email, and the website.

The Procedure is well-structured, with the establishment of responsibilities, workflow, response deadlines, easy access, and without reprisals, as required by ND1. It also makes it clear that the complainant has the right to independent legal and technical advice. The

[3] https://www.inpi.gob.mx/localidades2010-gobmx/

sectors responsible for disseminating its existence and available channels are the Social Responsibility and Human Resources (HR) sectors. The training video on social practices includes guidance on the use of complaint mechanism mailboxes.

It is recommended to separate the Grievance Mechanism, one specifically for external actors and another for internal actors. In the review of the Mechanism, it is also recommended to include measures for classification and registration of PRGS and indicators that allow statistical analysis.

4.1.i.iii Ongoing reporting to affected communities

Prolade will prepare a specific report for the Affected Communities describing the progress in the Project's implementation. The frequency of these reports will be proportional to the concerns raised by the Affected Communities but not less than once a year.

4.2 Labor and Working Conditions

4.2.a Working conditions and management of worker relationships

4.2.a.i Human resources policies and procedures

Prolade has implemented policies on Child Labor, Health and Safety at Work, Equity and Non-Discrimination, Social, and Reproductive Rights, in addition to a Code of Ethics. It also has an annual Training Program.

The Code of Ethics and Conduct outlines the principles that guide the behavior of Prolade's collaborators. The Code is a commitment to act ethically and a key component of the company's values.

The Social Policy makes it clear that the company respects Human Rights articles, advocates for women's reproductive rights, respects freedom of association, and prohibits any form of harassment (sexual and labor) and discrimination, among other provisions.

Prolade will formalize a Human Resources Policy aligned with national legislation and ND2 and will inform employees about it from the beginning of the employment relationship and when any substantial changes occur.

4.2.a.ii Working conditions and terms of employment

As of July 2023, Prolade has 433 employees, of which 55 work in the plant, 13 in corporate positions, and 365 in the field, with 45 of the latter being temporary. There are 379 men (88%) and 54 women (12%).

The field workforce engages in activities related to the Project's operation, such as harvesting, cutting, and fruit collection, among others. During the peak production season (i.e., from August to December), the Project hires additional temporary workers. The working hours on plantations are 8 hours from Monday to Friday and 5 hours on Saturdays.

Prolade will develop a Standard of Working Conditions as part of the ESMS aligned with Mexican legislation, PS2, and RSPO.

4.2.a.iii Worker organizations

The Social Policy states that the company respects Freedom of Association, and the Code of Ethics ensures that Prolade does not discriminate against workers participating in such organizations and collective bargaining nor takes reprisals against them. Additionally, by deciding to align with RSPO, Prolade complies with ILO standards, including respect for collective rights, freedom of association, and collective bargaining. Some workers are part of the Nationalist Workers' Federation.

4.2.a.iv Non-discrimination and equal opportunity

The Equity and Non-Discrimination Policy, the Social Policy, the Code of Ethics, and its Hiring and Personnel Management practices follow the principle of non-discrimination and ensure that the company offers all workers equal opportunities for employment and advancement, respecting gender, race, religious beliefs, ideology, sexual orientations, special physical abilities, recognizing the same rights for everyone.

4.2.a.v Retrenchment

Prolade hires temporary workers, but employment contracts already specify the duration of activities and the expected end of the contract. There is no indication that the company is or plans to carry out collective layoffs. Prolade will formalize a specific procedure to support this practice as part of the HR documents aligned with PS2.

4.2.a.vi Grievance mechanism

See section 4.1.i.ii.

4.2.b Protecting the workforce

4.2.b.i Child and forced labor

The Code of Ethics and the Social Policy, applicable to its employees, contractors, and subcontractors, state that Prolade only hires individuals of legal age, not allowing child labor, following the provisions of the Federal Labor Law. They also acknowledge that no person should be subjected to forced labor or any condition that harms or undermines their dignity.

As part of formalizing the HR Policy, Prolade will define its commitment to not employ child labor or forced labor.

4.2.c Occupational health and safety

Prolade has a Health and Safety at Work Policy, which clearly outlines the company's commitment to accident prevention, worker health care, prevention of occupational diseases, promotion of the use of Personal Protective Equipment (PPE), and effective workplace audits.

Additionally, it has an Occupational Health and Safety (OHS) program and worker training that includes, among others: Advanced first aid, brigades' functions and responsibilities, use and handling of PPE, harmonized system of hazardous chemicals, management, transportation, and storage of hazardous chemicals, noise conditions in workplaces, and work at heights.

Prolade has an OHS Coordinator responsible for monitoring, updating, and following up on the OHS plan in the processing plant and plantations. The coordinator also analyzes OHS indicators, documents, investigates, and recommends measures to prevent accidents and incidents at work, promotes training on OHS, emergency plans, and risks, among other functions.

Among the main risks to the health and safety of workers are accidents with palm thorns, snake bites, the risk of falls, clusters falling on the head, and traffic accidents, mainly motorcycle accidents.

4.2.d Provisions for people with disabilities

At the time of the DDAS, Prolade did not have disabled workers in its workforce. In compliance with national regulations, Prolade will develop a procedure as part of the ESMS to promote the recruitment of disabled personnel. Additionally, it will consider incorporating the principles of universal design in the design, construction, and operation (including emergency and evacuation plans), whether it is new construction restructuring, expansion, or modernization of facilities, to maximize use by all potential users, including people with disabilities.

4.2.e Workers engaged by third parties

Supplier assessment is based on quality, costs, and efficiency, following internal policies and procedures. Prolade only requires verification that all workers from contracted companies are properly hired and registered with social security. Prolade will ensure that contractors are legitimate, of recognized integrity, have hiring policies, and a Code of Ethics aligned with Prolade's procedures and policies. Contracts with third-party companies should include the obligation to comply with the conditions established in the Standard Working Conditions document prepared as recommended in Section 4.2.a.ii to ensure minimum safety and well-being conditions for all workers. Prolade will ensure that contractors' workers have access to a complaint mechanism.

4.2.f Supply chain

Not applicable as Prolade does not have fruit suppliers.

4.3 Resource efficiency and pollution prevention

4.3.a Resource efficiency

4.3.a.i Greenhouse gases

Emissions to the atmosphere will be generated mainly due to the generation of Greenhouse Gases (GHG) from operations involving activities with automotive vehicles, both for earthmoving in site preparation and for fruit transport, machinery, and personnel operations.

Having decided to align with RSPO, Prolade needs to comply with measures for the protection, conservation, and improvement of ecosystems and the environment (Principle 7), including the continuous reduction of GHGs and air pollution control to contribute to climate change mitigation. Prolade will calculate the global carbon footprint of the Project, including the GHG emissions from plantations and the extraction plant.

To mitigate the impact on air quality, mainly to control GHGs and measure the carbon footprint, it will implement the Atmospheric Conservation Plan. This plan proposes an Annual Carbon Footprint measurement, the preparation of an inventory of segregated consumption from energy sources, ensuring timely and periodic maintenance of internal combustion equipment and machinery, and conducting a route analysis for fruit movement to identify the least movement and distances.

4.3.a.ii Water consumption

The plantation is irrigated by seasonal rainfall or irrigation systems only during the dry season, with this being the main water consumption of the Project. The irrigation system will be installed on 16 plots. The Environmental Impact Manifest (MIA) for irrigation is currently in process. Prolade will submit the approval of the MIA by environmental authorities before putting the irrigation system into operation.

As for the extraction plant, water is a crucial resource for its operation. The milling process requires a significant amount of water for sterilization and processing of palm fruit. Water for the process is sourced from a deep well for which several concessions for groundwater exploitation were obtained from the National Water Commission (CONAGUA). This water is treated for use in the boiler, with a standard demineralization and filtration process for the industry. The water use factor is 1.8 to 1.3 tons of water per ton of fresh fruit bunches (FFB).

The Project has a Water Conservation Plan, with measures aimed at promoting the rational use of the resource, implementing reduction measures in agricultural activities, and complying with legal regulations and certification requirements. Prolade will implement flow meters and precision agriculture systems to reduce changes in surface water quality.[4]

4.3.b. Pollution prevention

Emissions

Prolade will measure atmospheric emissions from mobile and fixed sources and comply with the strictest parameters between national regulations and the IFC's General and Sectoral

4 According to the ESIA, during the construction, operation and maintenance phases, there may be occasional changes to the surface water quality caused by the use of fertilizers in the plantations. Herbicides will only be used very specifically on sick palm trees, which can happen several times a year. Given the volume of rainfall in the region, it will probably be occasional as it drains towards the surface water bodies.

Guidelines. Additionally, it will include an emissions management procedure as part of the ESMS.

Effluents and water quality

Ordinary or sanitary wastewater (from sanitary services, showers, washbasins) is directed to septic tanks or biodigesters, which discharge into bodies of water. Compliance with both systems will be ensured according to applicable legislation, in terms of permits and design and discharge parameters.

For the disposal of special wastewater mainly from cleaning agrochemical tanks, container washing, protective equipment, and pumps in the field, ecological filters such as Biodep or biological beds will be used. Biodep is mostly composed of a plant substrate (wheat straw, rice straw, or corn straw) containing a large amount of lignin, ideal for the growth of the so-called white rot fungus (Phanerochaete chrysosporium), whose enzymatic system can destroy lignin and a variety of chemical compounds, including pesticides.

In the operation of the extraction plant, the water used in the process is contaminated with organic matter such as oil, fiber, and shells, commonly called palm oil mill effluent (POME). This POME has high levels of biochemical oxygen demand (BOD), chemical oxygen demand (COD), and total suspended solids (TSS). Discharging untreated POME into a body of water can deplete dissolved oxygen (DO), cause eutrophication, and release methane (GHG). Therefore, the plant needs to have an appropriate treatment system to reduce the environmental impact of its operation.

Currently, effluent treatment in the extraction plant is carried out in an integrated system, consisting of anaerobic, facultative, and aerated sedimentation ponds. The effluent is being utilized for fertigation in the San Francisco farm. There is no national regulation for fertigation; however, Prolade's goal is to achieve parameters for discharges into national goods regarding BOD, COD, and TSS.

In the future, there are plans to implement a methane capture system resulting from digestion that occurs in the second stage of treatment. This would be done by installing a tent system over the pools that are pressurized and capture the methane, which can then be used as fuel for the extraction plant and vehicles within the farms if decided upon.

Prolade will maintain the measurement of treated effluent for fertigation and will include an effluent management procedure as part of the ESMS, submitting the wastewater discharge permit granted by CONAGUA to IDB Invest, which is currently in process.

Noise

The noise resulting from the activities of the extraction plant is related to the constant operation of fruit transport trucks, as well as machinery.

As preventive and mitigating measures, Prolade will perform preventive and corrective maintenance of machinery and equipment in specific workshops or sites, ensure that activities with the highest noise generation are carried out during the day, measure noise, and comply with the strictest parameters between national regulations and IFC General

Guidelines for residential and industrial noise. Prolade will include a noise management procedure as part of the ESMS.

Odors

Although the plant is not close to communities, unpleasant odors could be generated mainly due to the decomposition of organic matter and waste, anaerobic conditions (without oxygen) in the process, poor ventilation, or inadequate maintenance and cleaning.

Prolade will implement efficient waste management practices to minimize the accumulation of organic matter and prevent its decomposition, consider composting or anaerobic digestion of palm fruit residues and other organic waste to convert them into useful by-products such as biogas or organic fertilizer, perform maintenance and clean equipment regularly, consider the use of anaerobic digestion systems to convert organic waste into biogas for energy generation, monitor and control microbial activity to reduce the production of malodorous compounds, educate plant staff about the importance of odor control and proper waste management procedures, encourage employees to immediately report any potential source of bad odors, and maintain close communication with the nearest communities to address any concerns about odors and inform them about the plant's efforts to mitigate them.

4.3.b.i Wastes

Prolade has a Comprehensive Waste Management Plan, which aims to properly manage the wastes and residues (including common and hazardous wastes) generated on the farms and also in the extraction plant, such as generated bunches.

Organic and inorganic residues will be taken to the collection center where they will be kept separately and transferred to the authorized municipal landfill. The recovery of recyclable materials from inorganic waste will be promoted. When possible, a composter will be available for organic waste. Other waste such as scrap, tires, and wood will be stored in the collection center for reuse or later shipment to an authorized recycling company. Agricultural waste will be efficiently reincorporated into the soil. Non-recyclable ordinary waste, such as oils, fats, or lubricants, will be stored in a container in a dry place away from heat sources and will later be handled by an authorized third party.

4.3.b.ii Hazardous materials management

Prolade's Comprehensive Waste and Solid Waste Management Plan includes procedures for washing and disposing of empty pesticide containers, expired products, damaged applications and personal protection equipment. The training program includes topics related to the management, transport, and storage of hazardous chemicals.

Hazardous wastes such as products related to agrochemicals, fluorescent lamps, and bioinfectious waste will be properly labeled, and Prolade must keep records of the volume generated and proof of management and final disposal through a third party authorized by SEMARNAT. Prolade will review its storage practices and ensure that all hazardous items are properly labeled, separated, and stored in suitable facilities with spill containment measures.

Prolade will include a Hazardous Materials Management procedure as part of its Environmental and Social Management System (ESMS), including handling measures in work areas and warehouses, adaptation of storage areas, container cleaning and container disposal, among others, complying with Mexican legislation and IFC General Guidelines. The procedure will also encompass inspections and periodic maintenance of storage areas.

4.3.b.iii Management and use of pesticides

Prolade has a Manual of Agricultural Practices and Integrated Management for oil palm cultivation, which includes procedures for the application of agrochemicals and fertilizers, as well as re-entry into plantations after the use of agrochemicals. Prolade will develop and implement a Manual for the Use of Agrochemicals that includes conditions to store and manage hazardous products.

4.4 Community health, safety and security

4.4.a Community health and safety

4.4.a.i Infrastructure and equipment design and safety

Community health and safety risks are linked to plantation operations, such as pesticide application, manure use (exposing the community to pathogens and harmful odors) and burning waste (resulting in air emissions). There is also a risk for communities related to accidents involving Project vehicles or machinery on access roads.

One of the potential impacts of the project on communities is the increased risk of accidents due to higher road traffic volume from Prolade's transportation needs. To prevent road accidents, Prolade will develop and implement a Road Traffic Management Procedure as part of the Environmental and Social Management System (ESMS) and will train its workers on Occupational Health and Safety (OHS) matters, as well as respecting signals and speed limits.

4.4.a.ii Hazardous materials management and safety

Information regarding the preparation of the Manual for the Use of Agrochemicals can be found in section 4.3.b.iii.

It is expected that these measures will prevent or mitigate impacts associated with the use of agrochemicals, reducing the risk of affecting ecosystem services used by the community and the risk of spreading diseases linked to these hazardous products in the community.

4.4.a.iii Ecosystem services

See section 4.6.b.

4.4.a.iv Community exposure to disease

Project operation impacts on community health include noise emissions, odor generation, and dust exposure. The potential impact of Prolade's operation on the quality of nearby water bodies due to pesticide and fertilizer use, affecting water consumers or contaminated fish, has also been identified.

Refer to section 4.3.b for information on noise and dust control measures.

4.4.a.v Emergency preparedness and response:

See section 4.1.f.

4.4.b Security personnel

Plantation facilities lack security services. However, Prolade has engaged a specialized security services company for the extraction plant. Guards are armed and trained in firearm use and human rights.

Prolade will develop a procedure for recruiting security personnel, and conduct rules, training requirements, equipment, and staff supervision, aligning with applicable legislation and PS4 requirements.

4.5 Land acquisition and involuntary resettlement

This is not applicable, as the project does not anticipate expropriations, resettlements, or displacements. Land acquisition will involve voluntary transactions, with no expected impact on livelihoods.

4.6 Biodiversity conservation and natural habitats

4.6.a Protection and conservation of biodiversity

Flora
Nearly all Prolade's infrastructure (97%) is located in modified habitats, mainly agriculture (50%), grasslands (25.7%), and cultivated forests (20.54%). The only portions of natural habitat relate to secondary arboreal and bushy vegetation (2.9%) and will not be transformed by Project activities.

Baseline samples (terrestrial) identified 259 plant species, three with conservation importance: Quercus oleoides and Zamia loddigesii under the "Near Threatened" category of the IUCN list, and Cedrela odorata under the "Vulnerable" category. Additionally, Cedrela odorata and Zamia loddigesii are protected nationally by NOM-059 (With special protection and threatened, respectively).

Terrestrial fauna
Baseline samples (terrestrial) showed 243 animal species, 67 of which are native with some conservation importance. Nine species fall under high risk in the IUCN red list: Dasyprocta mexicana (Critically Endangered), Alouatta pigra, Ateles geoffroyi, and Amazona oratrix

(Endangered), and Agkistrodon bilineatus, Ramphastos sulfuratus, Eupsittula nana, Lontra longicaudis, and Leopardus wiedii (Near Threatened).

Aquatic fauna
Samples from Laguna El Rosario (two seasons) and river Teapa (one season) revealed numerous diatom species. Macroinvertebrate organisms' variety and abundance were low, with none falling under standard risk or protection categories. Five ichthyofauna species were identified, with Priapella compressa being endemic in Mexico and considered "threatened" by SEMARNAT.

4.6.a.i Modified habitats

Prolade, aligned with RSPO principles, establishes as a criterion that land clearance should not cause deforestation or harm any areas necessary to protect or enhance High Conservation Value (HCV) or High Carbon Stock (HCS) forests. Thus, Prolade has chosen to seek properties that are already modified habitats, where human activity has previously altered their primary ecological functions and the combination of local species, as defined by PS6.

The areas selected by Prolade for expanding plantations are primarily occupied by livestock, a popular activity in the region, but one that has decreased in intensity in recent years. These types of properties have large expanses of pastures where cattle used to graze, some trees that will not be affected or removed by the Project's operations, and riparian zones near water bodies. Among the advantages of these properties is that they already have previously developed access points, many of which are unpaved but accessible with appropriate vehicles such as vans and trucks.

The Land Acquisition Protocol will include a preference for acquiring areas that are modified habitats unless there is no viable alternative. The purchase or lease of future areas for the new phases of the Project will continue to prioritize the choice of anthropized properties, constituting modified habitats. In any case, this definition, along with the mapping of exclusion areas, must be clearly outlined in the Land Acquisition Protocol

4.6.a.ii Natural habitats

The only portions of natural habitat within the Project areas relate to secondary arboreal and bushy vegetation (2.9%) and will not be transformed by Project activities.

The Protocol will permit the acquisition of areas with natural habitat only if no viable alternatives exist, requiring the implementation of a Biodiversity Conservation Plan.

4.6.a.iii Critical habitats

According to the preliminary analysis of critical habitats performed for the ESIA, the IBAT tool identified 205 species that could trigger critical habitat due to their conservation/migratory status or because they have a restricted range, of which 12 have been surveyed in the biological baseline prepared for the analysis.

Before acquiring new land for the subsequent expansion phases, Prolade will complete a thorough analysis of critical habitats, to exclude the areas mapped as critical habitats from the viable land to acquire.

4.6.a.iv Legally protected areas and internationally recognized areas

Eight protected natural areas have been identified near the Project zone, in a 1-km strip around the extraction plant and the plantations; two more in a 10-km strip, and 20 in a 50-km strip. Prolade will conduct a biodiversity study to assess whether its properties near the eight protected natural areas in the 1-km strip are critical habitats.

4.6.a.v Invasive alien species

At the oil palm plant, it was detected that invasive species had been introduced, constituting one of the Project's negative impacts. According to the assessment, species will be certainly introduced that will affect the native vegetation; several exotic species have been recorded in the baselines. In this sense, the ESIA proposes the application of the Biodiversity Conservation Plan.

4.6.b Management of ecosystem services

The ESDD considered the analysis of ecosystem services, which involved a methodology based on the Guide for Integrating Ecosystem Services into Impact Assessment by the World Resources Institute (WRI). According to the analysis, ecosystem services were divided into provisioning, regulating, cultural, and supporting services.

It was also uncovered that there are ecosystem services on which the project depends, and others that may be impacted by the project, causing harm to the communities of the DIA. The latter includes, for example, the risk of water bodies' contamination by project activities, leading to the supply of poor-quality water to nearby residents. In certain places like Laguna del Rosario and rivers, there are tourist and recreational activities, as well as fishing. Alterations in water cycles may affect the proper development and survival of fish, which are relied upon and consumed as food. Additionally, during the operational stage, both in the rainy season and during irrigation in dry seasons, there is a possibility of generating more vectors such as mosquitoes and the red palm weevil (Rhynchophorus ferrugineus), which could jeopardize the health of the project's plantations and the area.

Prolade will develop plans for the conservation of water, soil, and biodiversity; implementation of plans and programs for the rational use of water; a program for proper waste management; procedures for fertilization with machinery; a program for managing riparian zones; a Biodiversity Conservation Plan; fauna rescue and relocation program; implementation of flow meters, and a precision agriculture system that will allow water management for its punctual, optimal, and efficient use.

4.6.c Sustainable management of living natural resources

Choosing lands that already have a previous anthropic use for plantations, and livestock, to avoid interference in natural habitats, and including this requirement in the Land Acquisition Protocol, aligns the project with the PS6 requirement to locate projects on non-forested or

already converted lands. It also contributes to the fact that the project is certified under the principles and criteria of the RSPO, and any expansion must be certified according to the requirements established in the certification scheme in point 5.5.2 of the certification systems, which states that to maintain the certificate, the certification unit must have a plan of determined duration to certify all its management units and/or entities, including units where the organization has management control and/or minority share participation.

4.6.d Supply chain

Not applicable as Prolade does not have fruit suppliers.

4.7 Indigenous peoples

4.7.a General aspects

PS7 applies due to the presence of communities with indigenous populations located in the AID of the project, as mentioned in Section 4.1.h.iii. The commitment not to affect the indigenous population must be clear in Prolade's Land Acquisition Protocol.

4.7.b Circumstances requiring free, prior and informed consent.

The principle of Free, Prior, and Informed Consent ("FPIC") does not apply to this project for the following reasons: i) the social baseline indicated that the project does not affect the lands or natural resources currently subject to traditional ownership; ii) neither the project nor the activities carried out by Prolade require or have produced the physical or economic displacement of indigenous peoples from their traditional lands; iii) neither the project nor the activities carried out by Prolade generate material impacts on the critical or cultural heritage of the area or the land or resources used by indigenous communities for cultural, spiritual, or ceremonial aspects; and iv) neither the project nor the activities carried out by Prolade will use cultural heritage, including traditional knowledge or practices, for commercial purposes.

However, Prolade will carry out an Informed Consultation and Participation process with stakeholders and will develop a Framework for Indigenous Peoples applicable to Indigenous communities in the AID registered in the INPI Catalog, households, and other members or groups of the community.

4.8 Cultural heritage

4.8.a Protection of cultural heritage in project design and execution

In the municipality of Huimanguillo, there is La Venta, an archaeological site of the Olmec culture with a large number of findings, primarily significant for its antiquity. La Venta is located approximately 40 km from the project. In the municipality, there is also the archaeological site of Malpasito, a characteristic site of the Zoque culture that used to be a ceremonial center. It is located approximately 30 km from the project.

In Mexico, the Federal Law on Monuments and Archaeological, Artistic, and Historic Zones aims to investigate, protect, conserve, restore, and recover monuments and archaeological,

artistic, and historical monumental zones, which is carried out through the National Institute of Anthropology and History (INAH).

Although there is a preference for acquiring areas that have already been intervened with previous agricultural use, as indicated in the Land Acquisition Protocol, Prolade in future phases must have a prior evaluation by experts to ensure the identification, protection, and preservation of possible archaeological and/or paleontological remains.

4.8.a.i Chance find procedures

The project has an Archeological Chance Find Procedure[5], outlining the steps to follow in case of finding archaeological heritage. However, there is no evidence that workers are trained in this procedure. To date, the project has not provided the INAH's Release Letter. Prolade will train its staff to recognize possible findings and take necessary actions, such as fencing the area for protection, notifying the project's management, and prohibiting activities in the identified site until evaluation, protection, rescue, or preservation work is carried out, as appropriate.

4.8.a.ii Community access

One of the ecosystem services identified in the Project's area of influence is recreation and ecotourism, as it is a region with ideal sites to connect with the region's nature, observe its diverse flora and fauna, and visit the only open-to-the-public Zoque archaeological zone in Mexico (Malpasito archaeological zone). This service was considered in the Environmental Impact Assessment (EIAS) as having low importance, high replaceability, and low priority. It is unlikely that the Project will prevent community access to elements of cultural heritage in the Zoque archaeological zone.

4.8.a.iii Removal of replicable cultural heritage

As of now, there are no plans to rescue any archaeological or cultural materials as part of the Project. In archaeological investigations conducted for future areas to be acquired, as well as in the implementation of the Archeological Chance Find Procedure, possible archaeological remains may be identified, and, upon assessment by the INAH, they may need to be rescued for preservation.

5. Local Access to Project Documentation

The documentation relating to the Project can be accessed in IDB Invest's website **https://idbinvest.org/en/projects/prolade**, whereas the information about the RSPO certification is available at **https://prolade.com/** and **https://rspo.org/members/1-0300-20-000-00/**

[5] (PRO-RS-ARQ-072) created on August 25, 2022.