

## New Planting Procedure - Summary of Integrated Management Plan

# RSPO

Roundtable on Sustainable Palm Oil

## POLIGROW

research + green oils



<b>NPP reference number</b>	SCS-RSPONPP-000324
<b>Country of NPP submission</b>	Colombia
<b>RSPO member number</b>	1-0079-09-000-00
<b>Reference to the management plan of the management unit</b>	Evaluation summaries and management plans for Poligrow Colombia S.A.S. and allies, member of RSPO 1-0079-09-000-00 Mapiripan Project, Meta.
<b>Name(s) of the farm(s) covered by this management plan</b>	Bogante 1 and Casuarito 1 properties

### Executive summary

This summary of the integrated management plans for the proposed new plantation in Mapiripan, Meta, on the Bogante 1 and Casuarito 1 properties, for Poligrow Colombia S.A.S. and allies, indicates the following:

- Main conclusions.
- Actions taken to manage and mitigate the key findings of the various assessments.
- Key mitigation and monitoring regime, covering both environmental and social aspects.
- An action plan outlining the operational actions consequent to the findings of the various assessments, with reference to the farmer's relevant operating procedures.
- Designation of the management team and responsible for implementation.

**Table 1.** Main conclusions.

Evaluation	Main conclusions
FPIC - Free, Prior and Informed Consultation Free, Prior and Informed Consultation	-Previous approach to the communities to the project site, access roads involved, resources potentially affected, and community interest in the new plantations. -Perform due diligence prior to the start of the scoping phase. -Approach with stakeholders guided by the principles of transparency and respect for free participation and opinion. -Participatory mapping was the methodological tool used for FPIC to determine the scope of the communities. This tool was carried out with the communities Caño Ovejas, Esteros Altos, Naexal Lajt Indigenous Reserve, as well as with territorial entities, which participated openly in the outreach meetings. -Legality of land tenure: review of public deeds, property certificates, and land titles. -Minutes of the meeting, agreements, reading of the minutes and signing.
Social Impact Assessment (SIA)	-A total of 120 participants from the different stakeholders participated in the consultation process. -In the case of the Naexal Lajt indigenous reservation community, it is worth mentioning that it was not possible to take photographs because the Jiw governor's authorization was not available, and not all participants agreed to sign the participation list. For some of the stakeholders, an open dialogue through an interview was necessary in order to capture perceptions and opinions according to their interests, whether regulatory or economic. In order to obtain evidence of the information, each of the interviews was recorded with the prior authorization of those involved. In addition, each of the stakeholders had leaders or representatives whose function was to act as

		<p>overseers and transmit concerns to the community or governmental level.</p> <p>-Information processing is an analysis of the uses of the resources present in the IIA in relation to the social, economic, and cultural dynamics of the communities consulted. This relationship is established based on the verification of regulations, secondary sources, satellite images, and the results of participatory mapping.</p>
	<p>Environmental Impact Assessment (EIA)</p>	<p>-The identification of activities was based on the review of primary and secondary information. For both scenarios a table was designed containing the name of the activity, its description and the evaluation criteria to be taken into account in the identification of impacts for each component.</p> <p>-The impacts were identified according to the findings evidenced in the field phase and their relevance in the area of influence, being the same impacts for both scenarios to be evaluated.</p> <p>-The sub-activities that generate significant effects on the air component and therefore increase the impact are: Mixing, fertilizer application and mobilization of vehicles and machinery.</p> <p>-The sub-activities that generate moderate impacts on the air component (noise) and that produce the impact are the mobilization of personnel and inputs in CA_1. PRE-NURSERY, land leveling (mobilization of machinery) and layout and construction of roads and harvesting paths in CA_3. SEEDING, pest control in CA_6. WEED, PEST AND DISEASE MAINTENANCE, the delimitation of roads and tracks and their respective opening and affirmation in AC_7. CONSTRUCTION AND ADAPTATION OF ROADS AND PATHWAYS and the adaptation of the soil and application of organic material in AC_8. ORGANIC SOIL CONDITIONING.</p> <p>-The sub-activities that generate significant effects on the soil component and that enhance this impact are land preparation and removal of vegetation cover in CA_3. PRE-SEEDING, application of fertilizers, organic matter and minerals in CA_4. SOWING, the application of amendments and fertilizer mixing and application in CA_5. FERTILIZATION, and weed and pest control in CA_6. WEED, PEST AND DISEASE MAINTENANCE. This is due to the fact that the adaptation of the land for planting the oil palm seedlings requires stripping and removal of the natural cover, removing any type of component that is considered inappropriate for optimal plant growth, allowing soil aeration and the circulation of nutrients from the resource, but eliminating natural components that allow the soil to evolve and increase its properties. Likewise, the application of products, amendments and fertilizers alters the physicochemical parameters of the soil, modifying its natural patterns.</p> <p>-The sub-activities that generate severe alterations on surface water quality are the mixing and application of fertilizers in CA_5. FERTILIZATION and chemical pest control in CA_6. WEED, PEST AND DISEASE MAINTENANCE, while the sub-activities that cause significant alterations on this impact are the layout and construction of roads and harvesting paths in CA_3. PRE-SEEDING, the delimitation of roads and paths in CA_7. CONSTRUCTION AND ADAPTATION OF ROADS AND PATHWAYS, and the application of organic material in CA_8. ORGANIC SOIL CONDITIONING.</p> <p>-The sub-activities that generate SIGNIFICANT affectations on the fauna component and that consequently increase the impact are Land Adequacy (Machinery) and removal of vegetation cover.</p> <p>-The sub-activities that generate SIGNIFICANT affectations on the flora component and that consequently increase the impact is the Land Adequacy (Machinery) and removal of vegetation cover.</p>

	<p>Soil potentiality survey.</p>	<p>On the Bogante property.</p> <p>The report details the analysis of the soil potential covering geographical, climatic, morphological aspects and specific results of the study.</p> <p>Location and Extent: Hacienda El Bogante, located to the north of Mapiripán, covers an area of 5233.83 hectares with access via a road in poor condition from Mapiripán.</p> <p>Productive projects: A sustainable African palm plantation project is planned for the area.</p> <p>Topography: The strongly dissected highlands present an undulating to broken relief with average slopes of 12-15%, highlighting areas with lower slopes. The topography is diverse, with convex interfluves and colluvial glaciers standing out.</p> <p>The savannah area studied corresponds to 4581.12 with a percentage of participation of 87.5%. This area has different geomorphic features, which are mentioned below. The forest comprises a total of 652.71 hectares, which represents 12.5% of the total area of the farm, distributed in important gallery forests and morichales, which are habitats of high conservation value. habitats of high conservation value.</p> <p>In general, of the 5233.83Has studied, 4187.44Has were found to be suitable, corresponding to 80% of the farm, for the development of sustainable oil palm cultivation. The remaining 393.66 hectares correspond to 7.5%, which for reasons of topography, thickness and depth of the petropheric layer, wetlands of conservation importance, were ruled out for the establishment of oil palm. Likewise, the forest area, which totals 652.71 hectares and corresponds to 12.5% of the total area, is also excluded for the project due to environmental policies that do not allow the forest to be cut down for the planting of African palm.</p> <p>Savannah area: 4187,44 ha - 80% participation  Area of forest: 652,71 ha - 12.5% participation  Area of important environmental conditions: 393,66 ha - 7.5% participation</p> <p>Total area: 5233,83 ha.</p> <p>In the Casuarito 1 property.</p> <p>805.34 hectares with a share of 33.6% of the total area of the farm, distributed in important gallery forests and morichales, are habitats with high conservation value.  2339.56 hectares studied, 1047.27 hectares were found to be suitable for sustainable oil palm cultivation, corresponding to 43.6% of the farm.  546.95 hectares correspond to 22.8% that for reasons of topography, thickness and depth of the petropheric layer, wetlands of conservation importance, were discarded for the establishment of oil palm.</p> <p>For the scope of the study and assessment of NPP;</p> <p>- UM Bogante1 has a total area of 216.44 ha, of which 37.13 ha were identified as HCV areas and 156.67 ha as potential plantation areas.</p>
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	<p>- The UM Casuarito1 has a total area of 145.61 ha, of which 36.31 ha were identified as HCV areas and 116.26 ha as potential areas for planting.</p> <p>It should be clarified that the remaining areas of the properties refer to the land covers that were not considered as potential or HCV areas, however, it is important to bear in mind that in the protection management areas of the zones identified as HCVs, these cannot be cleared.</p> <p>The analysis of the geomorphology reveals that the farm is located in a strongly dissected Altillanura. Convex ridges are predominant, covering 35.2% of the total area, followed by convex interfluves with 22.8%. Tabular ridges and narrow colluvioerosional valleys represent minor portions of the landscape.</p> <p>In relation to the slopes of the terrain, they were classified according to different landscape units. Sharp and tabular ridges have slopes of 7-12%, convex ridges 3-15%, convex interfluves 5-7%, colluvial glaciers 3-5%, and meadows with slopes 1-3%.</p>
<p>Greenhouse gases (GHG) and carbon stock.</p>	<p>By superimposing the HCV areas, the restriction areas recognized in the ESIA and the areas with high carbon storage values (HCS), the result was the identification of the main land covers and ecologically important areas for the sustainability of local and migratory flora and fauna, where only HCV areas were identified in the MUs.</p> <p>-The Bogante1 MU has a total area of 216.44 ha, of which 37.13 ha were identified as HCV areas and 156.67 ha as potential areas for planting.</p> <p>-The Casuarito1 MU has a total area of 145.61 ha, of which 36.31 ha were identified as HCV areas and 116.26 ha as potential areas for planting.</p> <p>-The carbon sequestration value was calculated for the vegetation cover of the properties according to their structural characteristics, floristic diversity and anthropic disturbances.</p> <p>-The results lead to a zoning of the areas for conservation taking into account the carbon fixation values and the service that the ecosystem provides as a carbon reservoir.</p>

source: (BioAp, 2022)

## 1 Summary of general results:

- The analysis and prioritization of interested parties allowed to identify 4 categories (governmental entities, non-governmental entities, communities and others) and 16 stakeholders, of which 7 were categorized with a high level of relevance, 6 with a medium level and 3 with a low level. Based on this identification and weighting, a prior approach process was carried out where the company representatives established an informative dialogue with the social actors, in order to invite and involve them in the process of construction and validation of the EISA, HCV, guaranteeing the transparency of the FPIC process.
- Participatory mapping was the methodological tool used to carry out the FPIC, to determine the scope of the communities. This tool was carried out with the Caño Ovejas, Esteros Altos, Naexal Lajt indigenous reservation communities, as well as with territorial entities, which participated openly in the outreach meetings.
- From the process of approaching the different interested parties, some proposals were identified that were incorporated into action plans for social impact studies and High Conservation Values, these are the improvement

of roads, technical assistance to small bread growers. ; guarantee respect for the protection strips, regarding the application of fertilization and agrochemicals to any natural drainage to avoid affecting the quality of the water and surrounding resources; and finally guarantee the non-affectation of ancestral or food subsistence areas of indigenous communities in terms of issues such as hunting and fishing.

- The EIA evaluated 9 impacts on the abiotic environment and 2 impacts on the biotic environment, finding for the impacts “changes in air quality”; “changes in soil quality”; “changes in soil structure”; “affectation of soil fertility”; “changes in the quality of surface waters”; “loss of fauna and impact on RAP species, of ecological, economic and cultural importance” and “loss of vegetation cover and impact on RAP species or of ecological, economic and/or cultural importance” activities that would cause significant effects and in the case of impact “changes in the quality of surface waters”, some with severe effects. However, in the impacts “changes in soil quality”, “loss of fauna and impact on RAP species, of ecological, economic and cultural importance” and “loss of vegetation cover and impact on RAP species or of ecological importance, economic and/or cultural” 2 subactivities were found with positive impact- In the evaluated MUs no peat soils were identified, although areas of fragile soils associated with a slope greater than 13% were found.
- The BOGANTE 1 and CASUARITO 1 MUs have legal land ownership according to the analysis of the legal titles that these properties have under the framework of national regulations. - A total of 37.12 ha of HCV 1 and HCV 4 (without subtracting overlapping) were identified in the BOGANTE 1 MU.
- A total of 36.31 ha of HCV 1 and HCV 4 (without subtracting overlaps) were identified in the CASUARITO 1 MU.
- A total of 272.93 hectares of potential planting potential were identified in clean pasture and open shrub cover.
- In order to guarantee the maintenance of the identified HCVs, a series of management actions aimed at the protection and conservation of these areas are suggested. It is worth taking into consideration that before starting the work of land suitability, planting and other activities related to the development of new plantations, the results of this HCV study, as well as the management recommendations, should be consulted with the communities present in the Area of Indirect Influence, in order to know their opinions, agreements or disagreements on the management measures to be implemented and to include their perceptions in the report, avoiding any conflict or violation of their rights.

Table 2 EIA Management plans.

Activity description	Objetives	Action type	Effects	Application site	Responsible	Monitoring indicators
Traffic regulation and control	Evaluate and strengthen the safety plan that identifies mobility routes, traffic schedules (rush hour) and critical accident risk areas.	Control Prevention Mitigation	Changes in transit and traffic and road infrastructure	Management unit evaluated	OSH Coordinator	-Percentage of compliance with objectives established in the Traffic Regulation and Control Plan. -Number of trainings provided / Number of established trainings *100
Community relations: management, communication, information and community and community participation	-Provide spaces for the participation of the communities in the areas of influence (COCODES, social and community organizations, representatives of public and private entities, etc.), where deliberation, decision making and shared commitments in favor of the development of the communities are encouraged. Provide timely, clear and transparent information to the communities regarding the company's actions and all issues of interest and relevance to the community. -Attend to complaints or claims, suggestions, requests for information presented by the community or citizens, providing timely and adequate attention.	Control Prevention Mitigation	-Changes in transit and traffic and road infrastructure.  -Changes in living conditions  -Changes in the local economy  -Community relations	Management unit evaluated	Sustainability Committee	-Percentage of compliance with agreements defined in the agenda with communities. -Number of meetings held / Number of meetings scheduled in the month*100 -Number of requests received in the month / Number of requests attended to and closed in the month*100 -Number of field visits carried out periodically / Number of field visits programmed periodically*100
Relationship with communities	-Generate spaces for participation and consultation with the Jiw and Sikuani indigenous communities by strengthening communication channels. -Define lines of action for collaborative work in accordance with the results of the study developed by the University of Los Andes..	Control Prevention Mitigation	Modification of customs and practices	Management unit evaluated.	Human Management Area and Poligrow Foundation	Number of meetings held/ Number of meetings scheduled *100

Human resource management	<ul style="list-style-type: none"> <li>-Provide adequate conditions for the development of activities by workers to increase their sense of belonging and loyalty (Extraction Plant and associated plantations).</li> <li>-Minimize occupational health and safety risks in all work performed at the extraction plant and plantations.</li> <li>-Strengthen industrial, local and labor safety protocols in accordance with existing risks for both the extraction plant and plantations.</li> <li>-Evaluate the effectiveness of the internal PQR attention and response system across the different areas (Extraction Plant and Plantations).</li> </ul>	Control Prevention Mitigation	Changes in the local local economy (labor conditions)	Management unit evaluated.	Human resources management (OSH)	<ul style="list-style-type: none"> <li>-Number of satisfaction surveys conducted / Total number of personnel hired*100.</li> <li>-Percentage of compliance with training plan</li> <li>-Number of accidents / Days worked.</li> <li>-Percentage of execution of the Infrastructure Improvement Plan * year.</li> <li>-Percentage of recognition of communication channels (Surveys).</li> <li>-PQR attended (Response) / PQR received (requests).</li> </ul>
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**Source:** (BioAp, 2022)

**Table 3.** SIA management plans.

Activity description	Objetives	Action type	Effects	Application site	Responsible	Monitoring indicators
Program for the formation of the environmental and social management group.	Ensure compliance and effective and effective development of the actions proposed in the environmental management plan (EMP).	Control Prevention	Not applicable	Management unit evaluated	Integral management or sustainability coordinator	-(N° of trainings carried out / N° of trainings programmed) * 100 -(N° of complaints, concerns or claims resolved / N° of complaints, concerns or claims received) * 100
Environmental and social training.	Train project personnel in technical, environmental management, safety, occupational health and social responsibility. occupational health and safety, and social responsibility.	Control Prevention Mitigation	Non-compliance of regulations due to lack of knowledge. Failures in the procedures	Management unit evaluated	Integral management or sustainability coordinator	-(N° of trainings carried out / N° of trainings programmed) *100 -(N° of workers trained / Total N° of workers involved in the project) *100
Runoff and surface water management program.	-Control the flow of runoff water. -Establish topographically the drainage and runoff system. -To conduct water away from the planting areas avoiding the generation of flooded areas. -Reduce the damage that runoff water can cause to lotic and lentic sources.	Control Prevention Mitigation	-Changes in surface water quality. -Impact on the availability of water resources.	Management unit evaluated	Integral management or sustainability coordinator	-(Linear meters of drainage canals constructed / Linear meters of drainage canals planned) *100 -(Cubic meters of material disposed / Cubic meters of material removed) *100 -N° Maintenance programmed to be carried out in a six-month period
Integrated solid waste management program.	-Establish activities to ensure the proper management of ordinary, hazardous and special waste, taking into account all stages of management: generation (minimization), separation at source, transportation, temporary storage, use, treatment and final disposal. -Proper delivery and/or final disposal of solid waste generated.	Control Prevention Mitigation	-Changes in soil quality. -Changes in surface water quality. -Changes in air quality. -Impact on water bodies (ichthyofauna, benthic and planktonic communities).	Management unit evaluated	Integral management or sustainability coordinator	(Kilograms of waste separated at source / Kilograms of waste generated) *100
Safe Handling of Agrochemicals	Establish measures for the storage, transportation,	Control Prevention	-Failures in procedures		Integral management or	-(N° agrochemical containers used / N° agrochemical



Program.	handling and application of the different agrochemical products used in the company, in order to prevent the occurrence of occupational accidents, occupational diseases and damage to the environment.		-Risks to workers' health. -Changes in soil quality. -Changes in air quality. -Changes in surface water quality.	Management unit evaluated	sustainability coordinator	containers returned) *100  -(N° agrochemical containers used / N° agrochemical containers washed) * 100
Fuel and oil management program.	-Avoid contamination from spills that affect the physical and chemical characteristics of the soil. -Develop appropriate practices for handling oils and fuels in the operation of machinery and equipment.	Control Prevention	-Changes in soil quality -Changes in surface water quality -Alteration of current land use	Management unit evaluated	Integral management or sustainability coordinator	-(No. of spills controlled / No. of spills reported) *100 (frequency every six months) -(quantity of oil used by each area/ quantity of oil purchased) *100 -(quantity of fuel used by each area/ quantity of fuel purchased) *100
Canal and road maintenance program.	-Establish activities for the maintenance of roads. -Prevent the occurrence of accidents or the breakdown of machinery and vehicles due to road deterioration. -Avoid soil and environmental damage.	Control Prevention Mitigation	-Changes in soil quality. -Changes in air quality. -Changes in water quality.	Management unit evaluated	Integral management or sustainability coordinator	(Meters of roads under maintenance / Meters of roads programmed for maintenance * 100 maintenance) * 100
Cover crop control program.	Establish general guidelines for the permanent control of cover crops present in the planting fronts.	Control Prevention Mitigation	-Proliferation of weed species. -Loss of forests and impact on water bodies. -Affection of crop production systems.	Management unit evaluated	Professional environmental and agronomist	(No. areas controlled with mucuna / No. areas reported) *100 (water and forest areas)

<p>Program for the management of domestic wastewater treatment systems.</p>	<p>Establish the activities related to the construction related to the construction, maintenance and signaling of the Domestic Wastewater Treatment System (STARD), to ensure its proper operation in compliance with national regulations, in safe and sanitary conditions that prevent accidents or illnesses to workers, as well as the deterioration of natural resources such as bodies of water, soil, flora and fauna.</p>	<p>Control Prevention Mitigation</p>	<p>-Soil contamination. -Contamination of surface and subway water bodies. -Non-compliance with national regulations.</p>	<p>Management unit evaluated</p>	<p>Integral Management Coordinator</p>	<p>(N° maintenance-cleaning executed / N° maintenance-cleaning programmed) *100.</p>
<p>Water works construction and improvement program.</p>	<p>-Avoid alteration of the riverbed as a result of the movement of machinery and vehicles over the riverbed. -Implement the necessary actions to protect the components of the water bodies that are being affected.</p>	<p>Control Prevention</p>	<p>-Affectation of streambeds. -Changes in the level of water bodies. -Alteration of the physicochemical properties of water sources. -Affectation of hydrobiological communities.</p>	<p>Management unit evaluated</p>	<p>Professional environmental</p>	<p>(N° of hydraulic works carried out / N° of programmed works) *100</p>
<p>Vehicle Control Program.</p>	<p>Comply with the permissible levels of pollutant emissions established by national regulations for land mobile sources.</p>	<p>Control Prevention</p>	<p>-Changes in noise levels - Changes in air quality</p>	<p>Management unit evaluated</p>	<p>Integral Management Coordinator</p>	<p>-(N vehicles with technical-mechanical certificate / N° total of vehicles) *100 - Semiannual report on the progress and results of program implementation.</p>
<p>Land clearing and vegetation cover management program.</p>	<p>-Carry out an environmental education program for all project personnel, through workshops on the importance of natural resources. -Prevent the removal and impact of vegetation outside the areas of direct</p>	<p>Control Prevention Mitigation</p>	<p>-Loss of vegetation -Affectation of the landscape. -Impact on endemic, endangered, banned and ecologically,</p>	<p>Management unit evaluated</p>	<p>Environmental and S&amp;SO professional</p>	<p>-N° Workers trained / N° Workers involved in all direct and indirect work*100. -No. of workshops executed/No. of workshops programmed * 100 -N° Areas of ecological interest signposted/No. areas of ecological interest identified) * 100</p>

		intervention by personnel working for Poligrow Colombia SAS.		economically and/or culturally important species.			
	Recovery program for affected areas.	<ul style="list-style-type: none"> <li>-Restore vegetation cover.</li> <li>-Protect slopes and conserve soils by carrying out works.</li> <li>-Landscape restoration of the affected area.</li> <li>-Prevent the advance of erosive processes in the intervened lands.</li> </ul>	Control Prevention Mitigation	<ul style="list-style-type: none"> <li>-Loss of vegetation cover.</li> <li>-Landscape disturbance.</li> <li>-Alteration of soils.</li> </ul>	Management unit evaluated.	Environmental and S&SO professional	<ul style="list-style-type: none"> <li>(Topsoil stripping area executed/ Topsoil stripping area required) *100.</li> <li>-(Revegetation areas executed/ Total revegetation area) *100.</li> <li>- N° of trainings carried out/ N° of trainings programmed *100.</li> </ul>
	Forest management program.	<ul style="list-style-type: none"> <li>-Reduce the impact caused to the environment by logging activities.</li> <li>-Optimize the use of wood and residual plant material.</li> <li>- Carry out logging only in the area of direct influence.</li> </ul>	Control Prevention Mitigation	<ul style="list-style-type: none"> <li>-Loss of vegetation cover.</li> <li>-Habitat fragmentation and loss of biological corridors.</li> <li>-Landscape disturbance.</li> </ul>	Management unit evaluated.	Environmental and S&SO professional	<ul style="list-style-type: none"> <li>(Volume of timber harvested / estimated volume of timber to be harvested) * 100</li> <li>- (Quantity of trees harvested / quantity of trees inventoried) * 100</li> <li>- No. shrubs planted that survive / No. shrubs planted *100</li> </ul>
	Program for the wildlife protection.	<p>Establish the actions for the management of the vegetation that will be intervened and/or affected by the works of the project, in order to prevent, minimize and control the impacts and/or affected by the project works, in order to prevent, minimize and control the impacts produced on this and the surrounding vegetation.</p> <ul style="list-style-type: none"> <li>- Establish the actions for the management of planting and maintenance of replacement plant species, the arrangement of treatments for plant replacement species, the arrangement of treatments and the association of species in articulation with the fauna of the area, within the implementation of the landscape design established for the project.</li> </ul>	Control Prevention Mitigation	<ul style="list-style-type: none"> <li>-Loss of fauna</li> <li>Habitat fragmentation and loss of biological corridors.</li> <li>-Impact on endemic, threatened, banned, and ecologically, economically, and culturally important species.</li> </ul>	Management unit evaluated.	Environmental and S&SO professional	<ul style="list-style-type: none"> <li>-(N° inspections / N° total programmed inspections) *100</li> <li>- (N° of trainings carried out / N° of trainings programmed *100)</li> <li>- (N° Workshops conducted / N° Workshops programmed *100)</li> <li>-Rescues/releases *100</li> <li>- N° signs installed / N° signs programmed *100</li> </ul>

<p>Program for the protection of sensitive ecosystems</p>	<p>-Maintain ecological balance by compensating affected forest ecosystems in direct areas. - Take into account the criteria of the importance of the ecosystems in order to effectively recover the affected areas.</p>	<p>Control Prevention Mitigation</p>	<p>-Loss of vegetation cover - Landscape disturbance - Fragmentation of corridors</p>	<p>Management unit evaluated.</p>	<p>Environmental and S&amp;SO professional</p>	<p>-(No. of trees planted / estimated number of trees to be planted) * 100 -(Number of surviving trees / number of trees planted) * 100 -(Reforested area / area earmarked for reforestation * 100</p>
<p>Program for the protection of sensitive ecosystems</p>	<p>-Protect and conserve water sources in the area of influence of the project. - Avoid deterioration of the physicochemical, bacteriological and hydrobiological quality of water bodies in the project's area of influence. - Prevent the occurrence of events that negatively affect both hydro biological communities and aquatic or associated wildlife in the area of direct influence of the project.</p>	<p>Control Prevention Mitigation</p>	<p>-Impact on water bodies (ichthyofauna, benthic and planktonic communities). (ichthyofauna communities, benthic and planktonic communities). -Loss of fauna</p>	<p>Management unit evaluated.</p>	<p>Environmental and S&amp;SO professional</p>	<p>No. of reports prepared / No. of reports programmed * 100 - No. of water resource samplings carried out / No. of water resource samplings programmed * 100 - No. of wildlife repellents carried out / No. of wildlife repellents programmed * 100 - No. of employee training sessions conducted / No. of employee training sessions scheduled * 100</p>
<p>Reforestation and recovery of natural areas.</p>	<p>Reforest the water courses in order to increase the protection strip. - Recover degraded areas with high erosion processes. - Restore fragmented forest areas with native and local forest species, including identified RAP species in the planting design. - Create temporary or permanent forest nurseries that contain enough plants to supply reforestation plans and programs. - Establish a reforestation and reforestation and recovery of natural areas (expansion of</p>	<p>Control Prevention Mitigation</p>	<p>- Impact on RAP and ecologically important species, economic and/or cultural importance - Loss of vegetation cover due to changes in land use (expansion of the agricultural and livestock frontier, among others). Habitat fragmentation and loss of connectivity.</p>	<p>Management unit evaluated.</p>	<p>Environmental and S&amp;SO professional</p>	<p>- (Area recovered per year / Projected areas to be recovered) *100 - Follow-up and monitoring of vegetation (active management) through the establishment of evaluation units (permanent plots and characterization plots) for the identification of RAP species (Flora). (permanent plots and characterization plots), for the identification of RAP species (Flora), recorded in the field forms (Forestry forms). - (Number of RAP species relocation procedures carried</p>



every two months.  
 - No. of roadkill after installation of signage / No. of roadkill after installation of signage.

Source: (BioAp, 2022)

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**Soil and topographic management plan**

**Table 4.** Soil and topographic management plan.

Name	Objetives	Type of measurement	Impacts to which it is responding	Place of application	Responsible	Follow-up Indicators
Soil and topographic management plan	<ul style="list-style-type: none"> <li>- Clearly delimit potential areas for new development, so that planting is not carried out in areas with fragile soils or on steep slopes.</li> <li>- Minimize the impacts caused by pre-planting activities, construction and adaptation of roads and drainage, application of fertilizers and agrochemical products, among others.</li> <li>- Technically arrange the material generated in the different stages.</li> <li>- Define and establish environmentally viable measures</li> </ul>	Control Prevention Mitigation	<ul style="list-style-type: none"> <li>- Changes in water quality</li> <li>- Changes on air quality</li> <li>- Changes in soil quality</li> <li>- Changes in surface water quality</li> </ul>	MUs evaluated	Integral management coordinator or Sustainability professional	<ul style="list-style-type: none"> <li>- (Square meters of intervened areas / Square meters of suitable areas (planted)) *100</li> <li>- (Volume of material removed / Volume of material recovered) *100</li> </ul>

and procedures for the development of vegetation cover and stripping removal activities. Minimize the impacts caused to the atmosphere by the mobilization and transit of vehicles and heavy machinery during the development of the project.

Source: (BioAp, 2022)

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**FPIC management plan**

**Table 5.** FPIC management plan.

Name	Objectives	Type of measurement	Impacts to which it is responding	Place of application	Responsible	Follow-up Indicators
Community relations: management, communication, information and community participation	<ul style="list-style-type: none"> <li>- Provide spaces for the participation of communities in the areas of influence (JAC social and community organizations, representatives of public and private entities, etc.), where deliberation, decision-making and shared commitments in favor of development</li> </ul>	Control Prevention Mitigation	<ul style="list-style-type: none"> <li>- Changes in traffic and road infrastructure</li> <li>- Changes in living conditions</li> <li>- Changes in the local economy</li> <li>- Community relations</li> </ul>	MUs evaluated.	Sustainability Committee	<ul style="list-style-type: none"> <li>- Percentage of compliance with agreements defined in the agenda with communities.</li> <li>- # meetings held / Number of meetings scheduled in the month*100</li> <li>- # requests received in the month / # requests attended to and closed in the month*100</li> <li>- Number of field visits carried out periodically / Number of field visits scheduled periodically*100</li> </ul>

		<p>are encouraged. of the communities. Provide timely, clear and transparent information to communities regarding the company's actions and all topics of community interest and relevance.</p> <ul style="list-style-type: none"> <li>- Respond to complaints or claims, suggestions, requests for information presented by the community or citizens, providing timely and appropriate attention.</li> </ul>					
Relationship with indigenous communities	<ul style="list-style-type: none"> <li>- Generate spaces for participation and consultation with the Jiw and Sikuni indigenous communities, by strengthening communication channels.</li> <li>- Define lines of action for</li> </ul>	Control Prevention Mitigation	<ul style="list-style-type: none"> <li>- Modifications to uses and customs</li> </ul>	MUs evaluated.	Human resources area and Poligrow Foundation.	<ul style="list-style-type: none"> <li>- Number of meetings held/Number of meetings scheduled *100</li> </ul>	



collaborative work in accordance with the results of the study developed by the Universidad de los Andes.

Source: (BioAp, 2022)

5 HCV areas

Table 6. HCV MANAGEMENT PLANS.

HCV	Actions	Monitoring	Team responsible for follow-up and monitoring the Poligrow Colombia.	Frequency	Date
	In accordance with the measures proposed for the management of HCV 1 areas (HCVMA), a 20-meter buffer strip is proposed around the HCV 1 areas identified within the MUs. In this strip, vegetation recovery through natural regeneration processes is proposed in order to create a natural barrier between HCV 1 areas and oil palm plantations.	<ul style="list-style-type: none"> <li>Conduct a flora inventory to identify the distribution and abundance of species present in the management areas. Support the inventory with a format that records the taxonomy of the species and the respective photographic support.</li> <li>Subsequent to the inventory, frequently monitor the growth of the plants present in the plants present in HCVMA 1 through Permanent Monitoring Plots by recording plant height, number of leaves and leaf size on a weekly or monthly basis, as deemed appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Management Coordinator Integrated Management</li> <li>Environmental Coordinator</li> </ul>	- Each two years	- 2024
HCV 1	Design and implement a policy of NO deforestation, NO hunting, NO fishing and NO burning accompanied by internal and external environmental awareness.	<p>(N° awareness talks conducted / N° awareness talks programmed) *100</p> <ul style="list-style-type: none"> <li>- Design a format to record the number of workers sanctioned in a period, for example, one month.</li> <li>- (N° of sensitization talks carried out / N° of sensitization talks programmed) *100</li> <li>- Attendance lists for awareness talks for both workers and other stakeholders.</li> <li>- Information on poaching, illegal logging and land use change should be collected and analyzed.</li> </ul> <p>Information on poaching, illegal logging and land use change should be collected and analyzed at least quarterly to determine the extent of damage and to determine the extent</p>	<ul style="list-style-type: none"> <li>Management Coordinator Integrated Management</li> <li>Environmental Coordinator</li> </ul>	- 2023	- 2023

		of damage. to determine the extent of damage and formulate strategies to curb its evolution.			
	Install signage prohibiting hunting, logging, fishing and burning in areas with a high influx of people and where there is considered to be vulnerability to HCV 1 areas.	<ul style="list-style-type: none"> <li>- No. of "no hunting" signs installed.</li> <li>- No. of "no logging" signs installed.</li> <li>- No. of "no fishing" signs installed.</li> <li>- No. of "no burning" signs installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- Annually	- 2024
	Clearly demarcate and delimit HCV 1 areas and their respective management areas (HCVMA), for example, with a well-marked stone path around these areas or through linear reforestation with native species.	<ul style="list-style-type: none"> <li>-Design a format to record the number of plants to be planted for the delimitation of HCV 1 and HCVA 1 areas, accompanied by their respective photographic record to support the actions developed.</li> <li>-Frequently monitor the growth of seedlings by recording plant height, number of leaves and leaf size on a weekly or monthly basis, as deemed appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2023	- 2023
	Install signage in areas of high human traffic to identify HCV 1 areas. The signage may be accompanied by information panels containing relevant data on what HCV 1 is, what its importance is and why it is necessary to protect areas considered to have High Conservation Values; these panels may be accompanied by photographs of the RAP species identified in HCV 1 areas.	<ul style="list-style-type: none"> <li>-N° of "HCV Area 1" signs installed.</li> <li>- N° "HCV Area 1" information panels installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- Annually	- 2024

Construct wildlife crossings in areas deemed feasible and necessary, and install the respective signage.	N° of wildlife crossings constructed.	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2025
Install informative billboards in areas of high worker flow indicating what HCV 1 is, why it is important to protect it, and which HCV 1 areas are within the Management Units assessed. These should be clear, coherent and easy to understand, and may be accompanied by allusive images or photographs.	- N° "wildlife crossing" signage installed.	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2025
Design and implement an annual internal monitoring program of fauna and flora, confirming or ruling out the presence of RTE species in the MU.	<ul style="list-style-type: none"> <li>- Monitor HCV 1 areas frequently in order to supervise and control the possible extraction of fauna and flora species. Monitoring should be carried out by a properly trained person.</li> <li>-Conduct annual monitoring of the presence and abundance of RAP species, in order to generate a follow-up and comparison of these species in HCV 1 areas..</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- Annually	- 2025
Properly record deforestation events that may occur, indicating the date, place and a photograph showing the area. If the deforestation events occur in the areas of AMAVC 1, make sure to reforest the area in order to maintain the present vegetation cover.	<ul style="list-style-type: none"> <li>- Design a format to record the date, location and photograph of deforestation incidents in HCV 1 areas. of deforestation incidents occurring in HCV 1 areas.</li> <li>- Number of deforestation incidents that occurred in HCV 1 areas or their management areas in a 1 month period.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2023
Ensure that the construction of infrastructure, roads, tracks, irrigation or drainage lines do not encourage fragmentation of HCV 1 areas or their management areas. Thus, infrastructure, roads, tracks and irrigation or drainage lines should be as far away as possible from	- Design a map - location plan of all the infrastructure present in each of the MUs in a way that shows their distance from the HCV 1 areas or their management areas.	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024

HCV 1 areas.				
Design and implement, in conjunction with stakeholders and workers, environmental awareness programs on issues related to HCV 1 and the importance of protecting and conserving this value.	<ul style="list-style-type: none"> <li>- (N° of awareness-raising talks carried out / N° of awareness-raising talks programmed *100)</li> <li>- Attendance lists for awareness talks for both employees and other stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2023
Design Standard Operating Programs (SOP) for the clearing and maintenance activities of the plantation areas, in order to ensure the proper execution of these activities by the company's personnel.	<ul style="list-style-type: none"> <li>- (N° of SOP socializations carried out to company personnel / N° of socializations programmed to be carried out) *100.</li> <li>- Attendance lists for socializations.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2023
Apply differentiated agrochemical management in the buffer strip of HCV 1, which must be properly demarcated and marked. Use 100% organic products in these areas.	<ul style="list-style-type: none"> <li>- Keep a record of the date, time and place where agrochemical and/or fertilizer applications were made, specifying the product applied, its quantity and the person in charge and/or responsible for the development of the activity.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024
Install signage on No agrochemical application in HCV 1 areas or their respective management areas.	<ul style="list-style-type: none"> <li>- N°. of "no agrochemical application in HCV 1 or HCVA 1 areas" signs installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2024
Train company personnel in the responsible use of agrochemicals.	<ul style="list-style-type: none"> <li>- (N° of trainings on the handling and use of agrochemicals / N° of trainings programmed to be carried out) *100.</li> <li>- Training attendance lists.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2024
<ul style="list-style-type: none"> <li>- Establish agreements with the population requiring entry to the MUs, establishing transit routes for the protection of HCV 1 areas.</li> <li>- Speak directly and respectfully with the people entering the MUs and make</li> </ul>	<ul style="list-style-type: none"> <li>- Design a map of community transit trails within the MUs, and share it with the parties involved. Inform the company's internal policies regarding the protection of HCV 1 areas and notify the leader or representative of each stakeholder as deemed necessary.</li> <li>- (N° of meetings held with the population entering the MUs / N° of scheduled meetings)</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2025	- 2025

	sure they know the boundary of private property; if necessary, take the legal measures you consider pertinent.	*100 - Attendance lists for meetings with stakeholders.			
<b>HCV 3</b>	In accordance with the measures proposed for the management of HCV 3 areas (HCVMA), a 20-meter buffer strip is proposed around the HCV 3 areas identified within the MUs. In this strip, vegetation recovery through natural regeneration processes is proposed in order to create a natural barrier between HCV 3 areas and oil palm plantations.	-Conduct a flora inventory to identify the distribution and abundance of the species present in HCV 3 management areas. Support the inventory with a format that records the taxonomy of the species and the respective photographic support. - After the inventory, frequently monitor the growth of the plants present in HCVA 3 through Permanent Monitoring Plots, recording plant height, number of leaves and leaf size on a weekly or monthly basis, as appropriate.	- Management Coordinator Integrated Management - Environmental Coordinator	- Each two years	- 2024
	Avoid the use of cover crops in areas near HCV 3 (note the management areas recommended in this document).	-Design a format to record the species planted as cover crops and support this information with a photographic record showing their distance from HCV 3 areas and their respective management area.	- Management Coordinator Integrated Management - Environmental Coordinator	- 2024	- 2024
	Design and implement a SOP on the control of cover crops, so that short control cycles are managed and the expansion and introduction of cover crops into HCV 3 areas is avoided.	(N° of SOP socializations carried out to company personnel / N° of socializations programmed to be carried out) *100. - Attendance lists for socializations.	- Management Coordinator Integrated Management - Environmental Coordinator	- 2024	- 2023
	Design and implement the NO deforestation and NO burning policy accompanied by internal and external environmental awareness.	- (N°. of awareness talks held / No. of awareness talks scheduled) * 100	- Management Coordinator Integrated Management - Environmental Coordinator	- N/A	- 2023
	Clearly demarcate and delimit HCV 3 areas and their respective management areas (HCVMA), for example, with a well-marked stone path around these areas or through linear reforestation with native	-Design a format to record the number of plants to be planted for the delimitation of HCV 3 and HCVA 3 areas, accompanied by their respective photographic record to support the actions developed. - Frequently monitor the growth of the planted plants by recording plant height, number of leaves and leaf size on a weekly or monthly	- Management Coordinator Integrated Management - Environmental Coordinator	- 2025	- 2025

species.	basis, as appropriate.			
Install signage in areas of high human traffic to identify HCV 3 areas. The signage can be accompanied by information panels containing relevant data on what HCV 3 is, what its importance is and why it is necessary to protect areas considered with High Conservation Values; these panels can be accompanied by photographs of the vegetation and ecosystems considered as HCV 3 areas.	<ul style="list-style-type: none"> <li>- N° of "HCV Area 3" signs installed.</li> <li>- N° "HCV Area 3" information panels installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2025
Install signage related to the prohibition of slash and burn in areas with a high flow of people and where it is considered that there is vulnerability to HCV 3 areas.	<ul style="list-style-type: none"> <li>- N° of "no logging" signs installed.</li> <li>- N° of "no burning" signs installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2024
Design and implement an internal work regulation that penalizes workers for hunting, logging, fishing and burning. After the sanction, a plan should be established to raise awareness among workers so that they avoid repeating such actions in the future.	<ul style="list-style-type: none"> <li>- Design a format in which you record the number of workers sanctioned in a period, for example, one month.</li> <li>- (No. of awareness talks carried out / No. of awareness talks scheduled) *100</li> <li>- Attendance lists for awareness talks for both workers and other stakeholders.</li> <li>- Information on poaching, illegal logging and land use change should be collected and analyzed at least quarterly to determine the extent of damage and formulate strategies to curb its evolution.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2023
Design and implement in conjunction with some stakeholders, environmental awareness programs on issues related to HCV 3.	<ul style="list-style-type: none"> <li>- (No. of awareness-raising talks held / No. of awareness-raising talks programmed scheduled) *100</li> <li>- Attendance lists for awareness-raising talks for both employees and other stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2024
Install informative billboards in areas of high worker flow indicating what HCV 3 is, why it is important to protect it and which are the HCV 3 areas within the Management Units	<ul style="list-style-type: none"> <li>-(N° of informative billboards installed / N° of billboards to be installed) *100</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2024

	assessed. These should be clear, coherent and easy to understand, and may be accompanied by allusive images or photographs.				
	Protect HCV 3 areas and their respective HCVMA through reforestation with intercropped native species, so as to increase the area of forest cover.	<ul style="list-style-type: none"> <li>- Design a format to record the number of plants to be planted for the delimitation of HCV 3 and HCVA 3 areas, accompanied by their respective photographic record to support the actions developed.</li> <li>- Frequently monitor the growth of the planted plants by recording plant height, number of leaves and leaf size on a weekly or monthly basis, as appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2025	- 2025
HCV 4	<p>According to the measures proposed for the management of HCVA 4 areas (HCVAs), a 30-meter water protection buffer zone is proposed parallel to the maximum tide lines on each side of the identified riverbeds, streams and creeks, whether permanent or not, and a 20-meter buffer zone around the ecosystems considered HCVA 4, associated with a 10-meter differentiated management zone.</p> <ul style="list-style-type: none"> <li>- In the water protection buffer zone, the recovery of natural vegetation (reforestation) is proposed, while in the buffer zone, the use of 100% organic products is proposed in order to avoid affecting the water buffer zone and bodies of water.</li> <li>- Riparian vegetation that has been cleared for any reason must be reforested by the company.</li> </ul>	<ul style="list-style-type: none"> <li>- Design a format to record the number of plants to be planted in the water protection round (HCV 4), accompanied by their respective photographic record to support the actions developed.</li> <li>- (N° of organic products / N° of products used) *100</li> <li>- Frequently monitor the growth of the plants planted by recording the height of the plants, the number of leaves and their size on a weekly or monthly basis, as deemed appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2025	- 2025

<p>New developments must avoid crossing riparian areas catalogued as HCV 4. In the case of roads and tracks, they must avoid crossing these areas and, if necessary, the necessary works must be built to avoid damaging them (bridges or culverts).</p>	<p>Design a map - plan of the location of roads, tracks and/or irrigation or drainage lines present in each of the MUs in such a way that their distance from the HCV 4 areas or their management areas is evident.</p>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- 2024</p>	<p>- 2024</p>
<p>Design and implement a policy of NO deforestation, NO fishing and NO burning accompanied by internal and external environmental awareness.</p>	<p>(N° awareness talks carried out / N° awareness talks scheduled) *100</p>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2023</p>
<p>Design and implement an internal work regulation sanctioning logging, fishing and burning workers.</p>	<ul style="list-style-type: none"> <li>- Design a format in which you record the number of workers sanctioned in a period, for example, one month.</li> <li>- (No. of awareness talks conducted / No. of awareness talks scheduled) *100</li> <li>- Attendance lists for awareness talks for both workers and other stakeholders.</li> <li>- Information on illegal logging and land use change should be collected and analyzed at least quarterly in order to determine the extent of damage and formulate strategies to curb its evolution.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2024</p>
<p>Install signage related to the prohibition of logging, fishing and burning in areas with a high flow of people and where it is considered that there is vulnerability to HCV 4 areas.</p>	<ul style="list-style-type: none"> <li>- N° of "no logging" signs installed.</li> <li>- N° of "no fishing" signs installed.</li> <li>- N° of "no burning" signs installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- 2025</p>	<p>- 2025</p>
<p>Clearly demarcate and delimit HCV 4 areas and their respective management areas (HCVAs), for example, with a well-laid stone path around these areas (especially riparian areas) or through linear reforestation with native species.</p>	<ul style="list-style-type: none"> <li>- Design a format to record the number of plants to be planted for the delimitation of HCV 4 and HCVA 4 areas, accompanied by their respective photographic record to support the actions developed.</li> <li>- Frequently monitor the growth of the planted plants by recording plant height, number of leaves and leaf size on a weekly or monthly basis, as appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- 2025</p>	<p>- 2025</p>



<p>The signage can be accompanied by informative panels containing relevant information on what HCV 4 is, what its importance is and why it is necessary to protect areas considered to have High Conservation Values; these panels can be accompanied by photographs of the water bodies and riparian strips present in the Management Units.</p>	<ul style="list-style-type: none"> <li>- N° of "HCV Area 4" signs installed.</li> <li>- N° "HCV Area 4" information panels installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2024</p>
<p>Design and implement, together with some stakeholders, environmental awareness and training programs on issues related to HCV 4.</p>	<ul style="list-style-type: none"> <li>- (N° awareness-raising talks held / N° awareness-raising talks scheduled *100)</li> <li>- Attendance lists for awareness talks addressed to both employees and other stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2024</p>
<p>Install informative billboards in areas of high worker flow indicating what HCV 4 is, why it is important to protect it, and which HCV 4 areas are within the Management Units assessed. These should be clear, coherent and easy to understand, and may be accompanied by allusive images or photographs.</p>	<ul style="list-style-type: none"> <li>- (N° of informative billboards installed / N° of billboards to be installed) *100</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2025</p>
<p>Design and implement a management program on the use of agrochemicals and the management and disposal of solid waste generated by the MU during production activities.</p>	<ul style="list-style-type: none"> <li>- (N° of socializations of the ameno program carried out to the company's personnel / N° of socializations programmed to be carried out) *100.</li> <li>- Attendance lists for socializations</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2023</p>
<p>Install signage about No agrochemical application in HCV 4 areas or their respective management areas.</p>	<ul style="list-style-type: none"> <li>- N° of "no agrochemical application in HCV 4 or HCVA 4 areas" signs installed.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	<p>- N/A</p>	<p>- 2025</p>

HCV 5	Design and implement a management program on the use of agrochemicals and the management and disposal of solid waste generated by the MU during production activities to guarantee the quality of the water resource and its associated downstream cover.	<ul style="list-style-type: none"> <li>- (N° of socializations of the ameno program carried out to the company's personnel / N° of socializations programmed to be carried out) *100.</li> <li>- Attendance lists for socializations</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- N/A	- 2023
	In case of conflicts over the use and exploitation of resources directly related to HCV 5 (Caño Yamú and associated forest cover) present in the MU, generate consensus on access and protection of these resources.	<ul style="list-style-type: none"> <li>- Number of consensus minutes with community representatives.</li> <li>- Number of socialization lists.</li> <li>- Number of records of cases of non-compliance with agreements and measures to be taken in response to the situation.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024
	Establish alliances with governmental entities to develop reforestation activities for water sources.	<ul style="list-style-type: none"> <li>- Agreements with governmental entities and agreements established</li> <li>- (No. of projects or activities implemented / No. of projects or activities agreed) *10</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024
HCV 6	Manage spaces for participation and consultation with the Jiw indigenous community by strengthening communication channels.	<ul style="list-style-type: none"> <li>-Number of consensus minutes with community representatives.</li> <li>- Number of lists of meetings and approaches with the community.</li> <li>- Number of records of cases of non-compliance with agreements and actions to be taken in response to the situation.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024
	Support the consolidation of strategies that allow the protection of resources for community use and the conservation of the cultural value of the Jiw people, as is the case of the Reservation's Life Plan.	<ul style="list-style-type: none"> <li>- Number of minutes of meetings with community representatives.</li> <li>- Number of lists of meetings and approaches with the community.</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024
	Support the consolidation of strategies that allow the protection of resources for community use and the conservation of the cultural value of the Jiw people, as is	<ul style="list-style-type: none"> <li>- Agreements with governmental entities and covenants.</li> <li>- (No. of projects or activities executed / No. of projects or activities approved) *100</li> </ul>	<ul style="list-style-type: none"> <li>- Management Coordinator Integrated Management</li> <li>- Environmental Coordinator</li> </ul>	- 2024	- 2024

the case of the Reservation's Life Plan.

Source: (BioAp, 2022)

**6 Carbon Stock, GHG Management and Mitigation Plan.**

The management plans proposed below are developed in order to meet the goals established by the RSPO to generate an annual decrease in GHG emissions, which are produced both in plantations and in the extraction plant.

**Table 4.** GHG emission plans.

Type of action			
Preventive	Corrective	Mitigation	Compensation
X	X	X	

Description of activities				
No	Action	Environmental benefit	Responsible	Year
1	Implementation in the field of organic fertilizers as prepared biofertilizers, in order to obtain an optimum for the growth of the palms, and thus reduce the use of chemical fertilizers in the field.	Optimization of the amount of organic fertilizers and reduction in the use of chemical fertilizers, in order to reduce associated GHG emissions.	Coordinator Agronomist.	2024
2	Promoting the use of leguminous cover crops to reduce the use of inorganic nitrogen fertilizers.		Coordinator Agronomist.	2024
3	Keep weeds in the trench by hand, using a hoe or machete, to reduce or eliminate herbicide use. In the event that the company continues with the application of herbicides, it should increase the application of good agricultural practices.	Reduction of N2O emissions.	Field Coordinator and Coordinator Agronomist	2024
4	Incorporation of native forests into the ecosystem in free areas.	Reduction of CO2 emissions Increase of carbon drains	Coordinator Environmental	2024
5	Design and implementation of a periodic maintenance plan for machinery and tools that run on fossil fuels.	Reduction of CO2 emissions, since if the machinery is old or in poor condition, emissions will be higher.	Foreman of workshop and machinery	2024
6	Implementation of an energy saving and efficient use plan at the extraction plant.	Knowing the critical points with high energy consumption in order to propose environmentally efficient alternatives.	Extraction Plant Coordinator and Environmental Coordinator.	2024

source: (BioAp, 2022)

<b>6</b>	<b>Acceptance of Management Plans</b>	<b>Name of Person Responsible</b>	Zoilita Florez
		<b>Designation</b>	Integral Management Coordinator
		<b>Signature</b>	
		<b>Datej</b>	12/12/2023