

## New Planting Procedure - Summary of Assessments

# RSPO

Roundtable on Sustainable Palm Oil



**NPP Reference Number:** CU-NPP-885082

**Country of the NPP submission:** GUATEMALA

**RSPO Membership Number:** 1-0069-08-000-00

### Section 1: General Information

*Guidance Note: In this section, the growers need to provide all the necessary information in relation to the new development projects. This includes the type of assessment conducted, location of the project, the type of permit currently obtained, the rights to use the land information, and all relevant information. The land clearing plans will be included in this section as well.*

The evaluations were carried out for two (2) Management Units (MU) called "Los Juilines" and "Las Ceibas B", managed by the organizations AGROCARIBE S.A. and PALMAS DEL NORORIENTE S.A. respectively, which are located in the municipality of Puerto Barrios, department of Izabal, in the Republic of Guatemala.

The UM Los Juilines has an area of 139.91 ha, while the UM Las Ceibas B has an area of 107.10 ha, covering a total of 247.01 hectares.

Company	Farm	Land Property	Description	Observations
AGROCARIBE	Juilines	Public Deed No. 9 Document Code 7982034	Rustic property registered in the General Property Registry, at number 51, folio 51 of book 74 of Izabal, acquired by the entity Lovaina Sociedad Anónima on January 17, 2018 through the execution of a real estate contribution contract.	<b>Updated</b> Lease contract between the legal representatives of LOVAINA S.A. and AGROCARIBE S.A., of the property with an area of 139.65133 Ha, <b>for a term of 20 years signed the 14 January of 2022.</b> The property object of the lease will be for the planting and cultivation of African palm
PALNORSA	Las Ceibas B	Public Notarial Deed No. 17	Rustic property registered in the General Property Registry, at property number 2200, folio 239 of book 20 of Izabal, acquired by the entity Hacienda La Reserva, Sociedad Anónima on November 20, 2017 through the execution of a real estate contribution contract.	Lease agreement between the legal representatives of Hacienda La Reserva S.A. and Palmas del Nororiente S.A., for a term of 25 years as of January 1, 2019. The property will be used solely and exclusively to install an African palm plantation and the crops that are necessary for such purpose, as well as cattle grazing.

## PROGRAM OF ACTIVITIES FOR PLANTING PALM New Plantations 2022

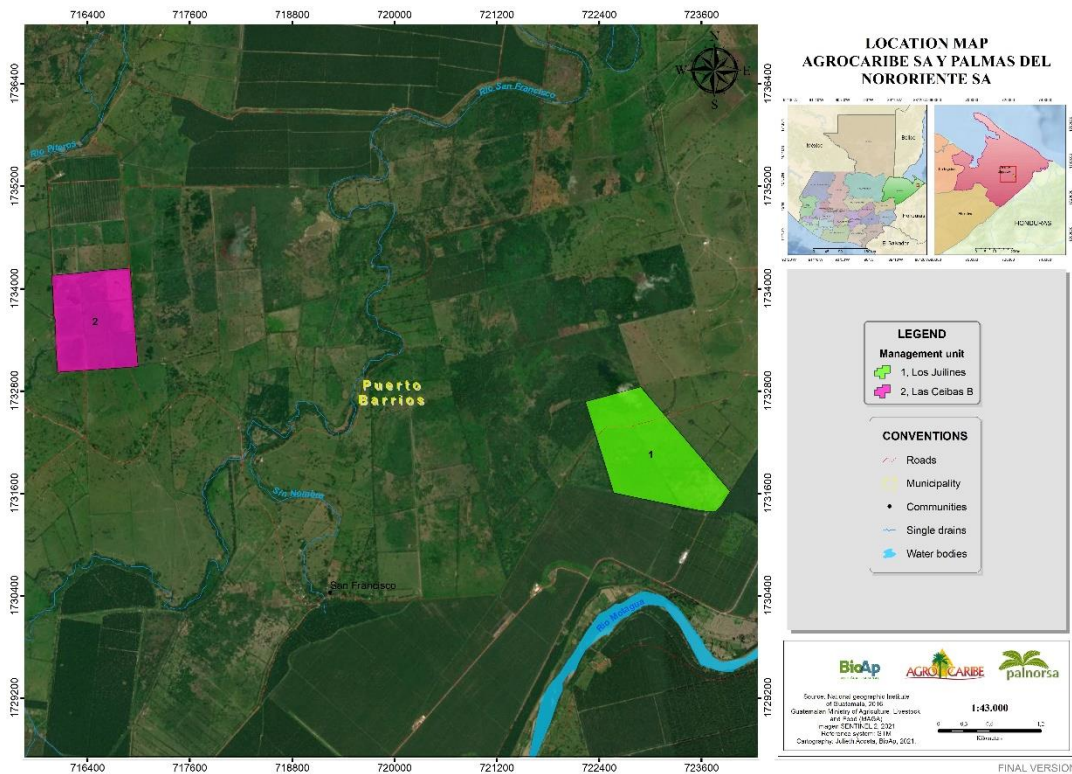
Activity / Week	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Land preparation	x	x	x	x	x	x	x	x																
Land conformation	x	x	x	x	x	x	x	x																
Signage of palm lots		x	x	x	x	x	x	x	x															
Construction of drainage	x	x	x	x																				
Drawing fairways	x	x	x	x																				
Installation of complementary infrastructure	x	x	x	x																				
Establishment of cover plants (Soil Conservation Practices)	x	x	x	x																				
Scribing and drilling for planting sites													x	x	x	x	x	x	x	x	x	x	x	x
Sowing of plants													x	x	x	x	x	x	x	x	x	x	x	x

Source: Agrocaribe S.A.

### Section 2: Maps

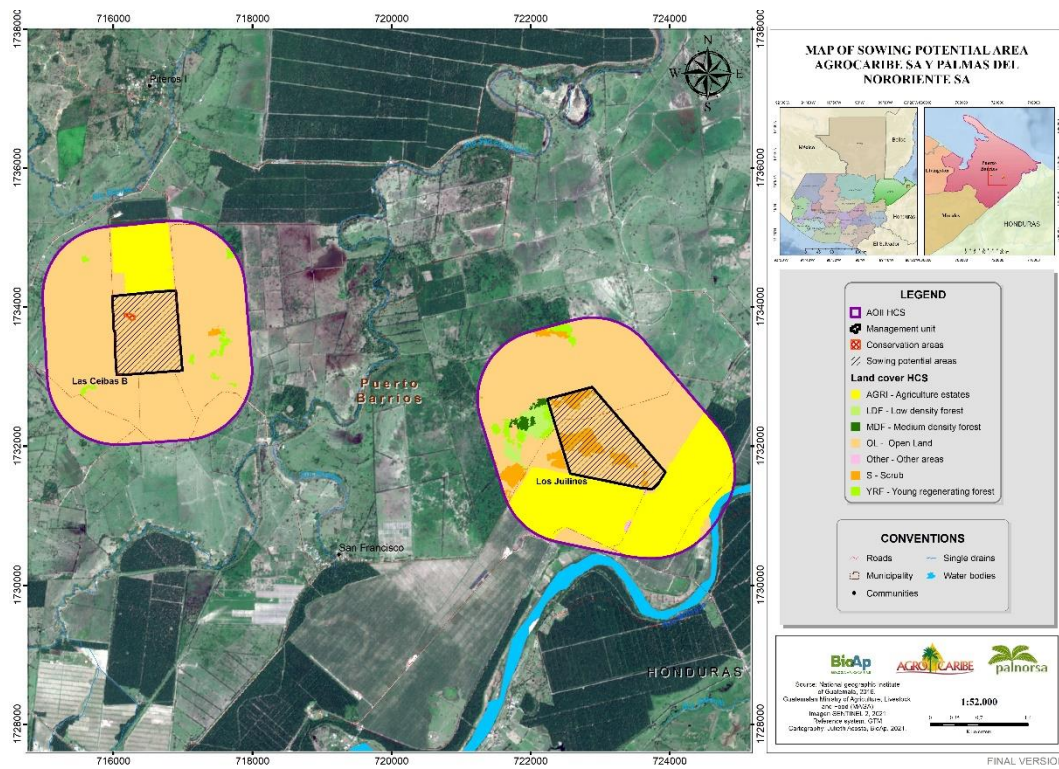
*Guidance Note: Please include the following maps here with minimum 300 dpi resolution*

- *Boundary Maps owned by the company*

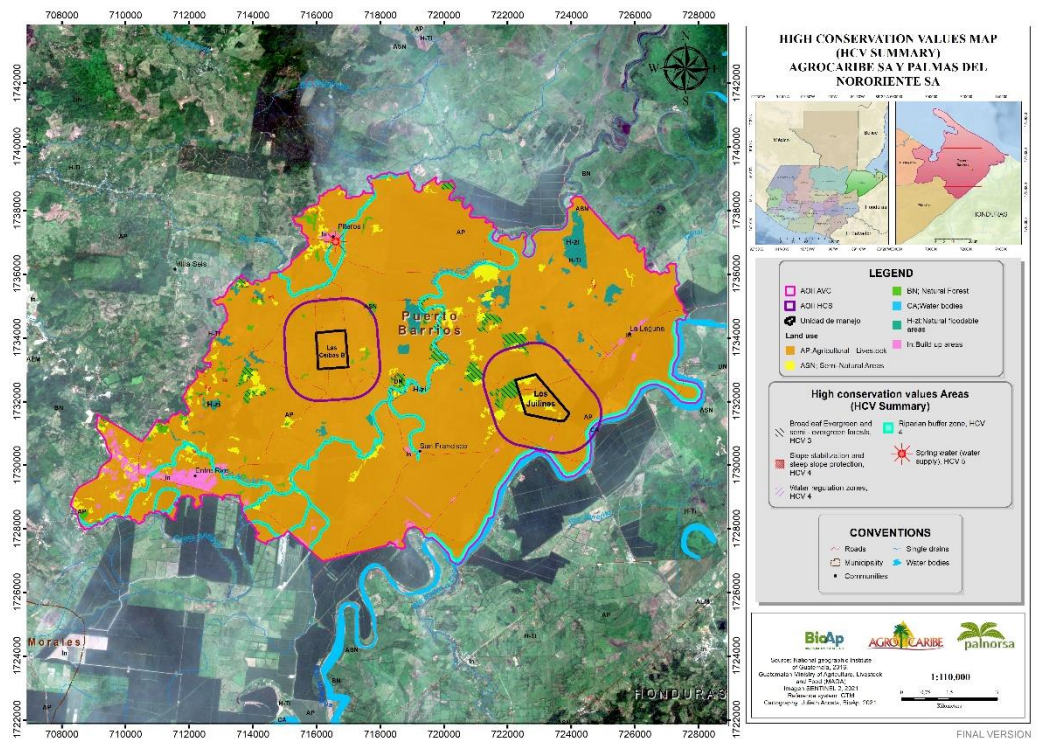




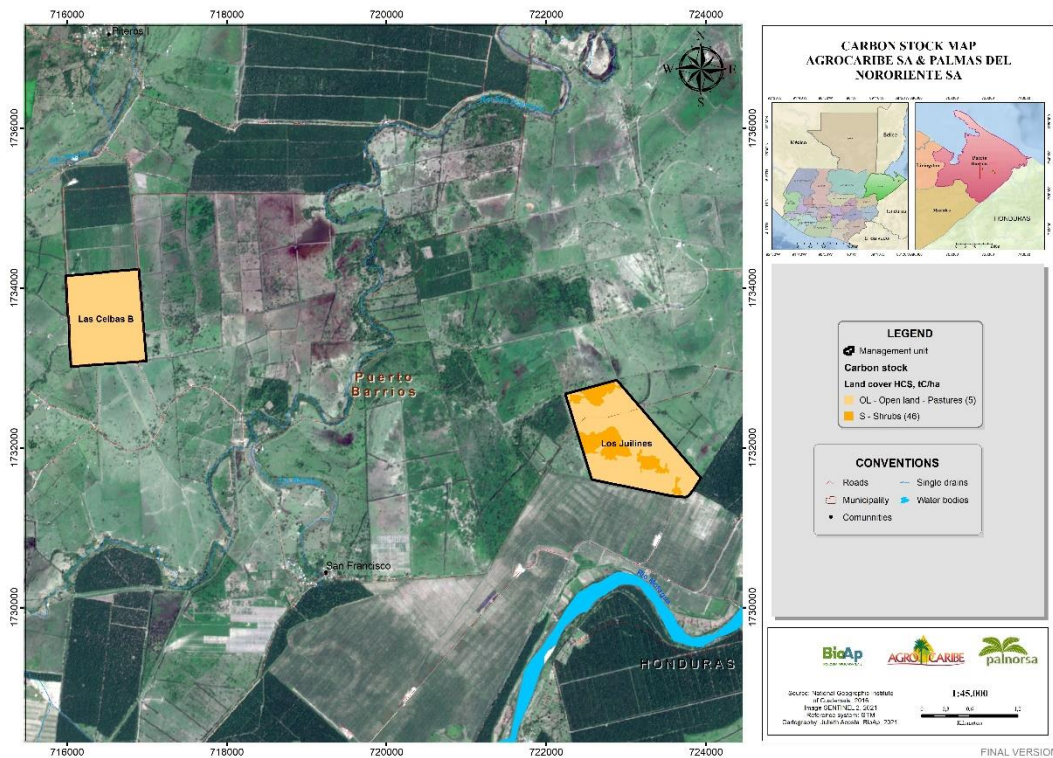
- Proposed NPP area Maps



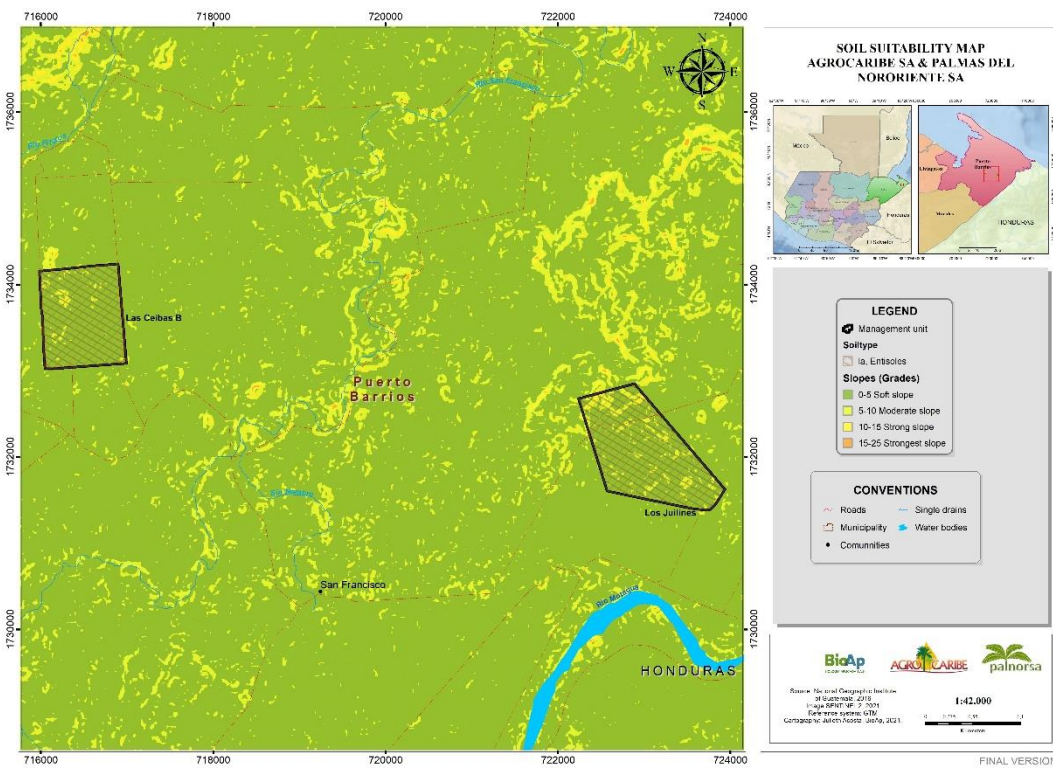
- Proposed NPP area Maps overlay with HCV and HCS areas



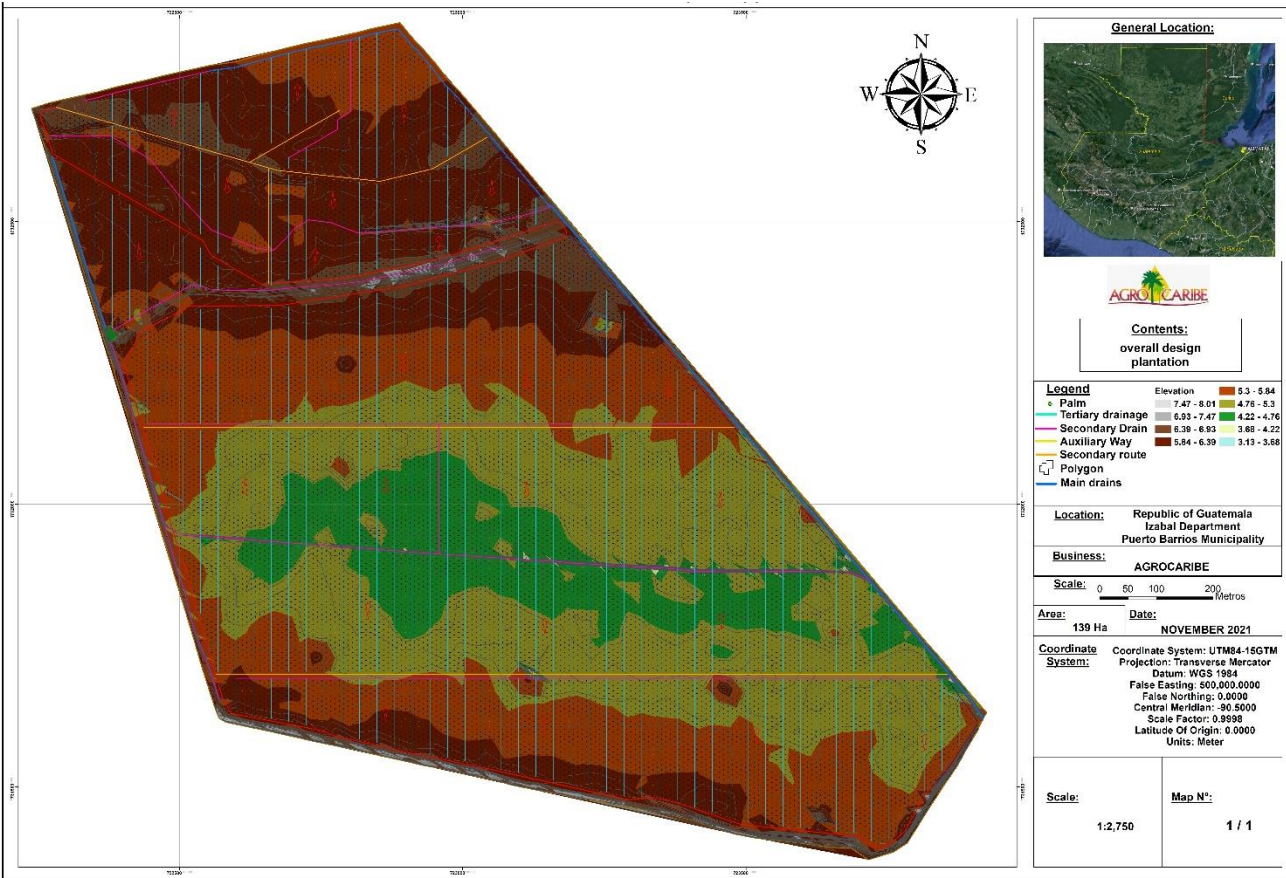




- Soil Study of Proposed NPP area Map

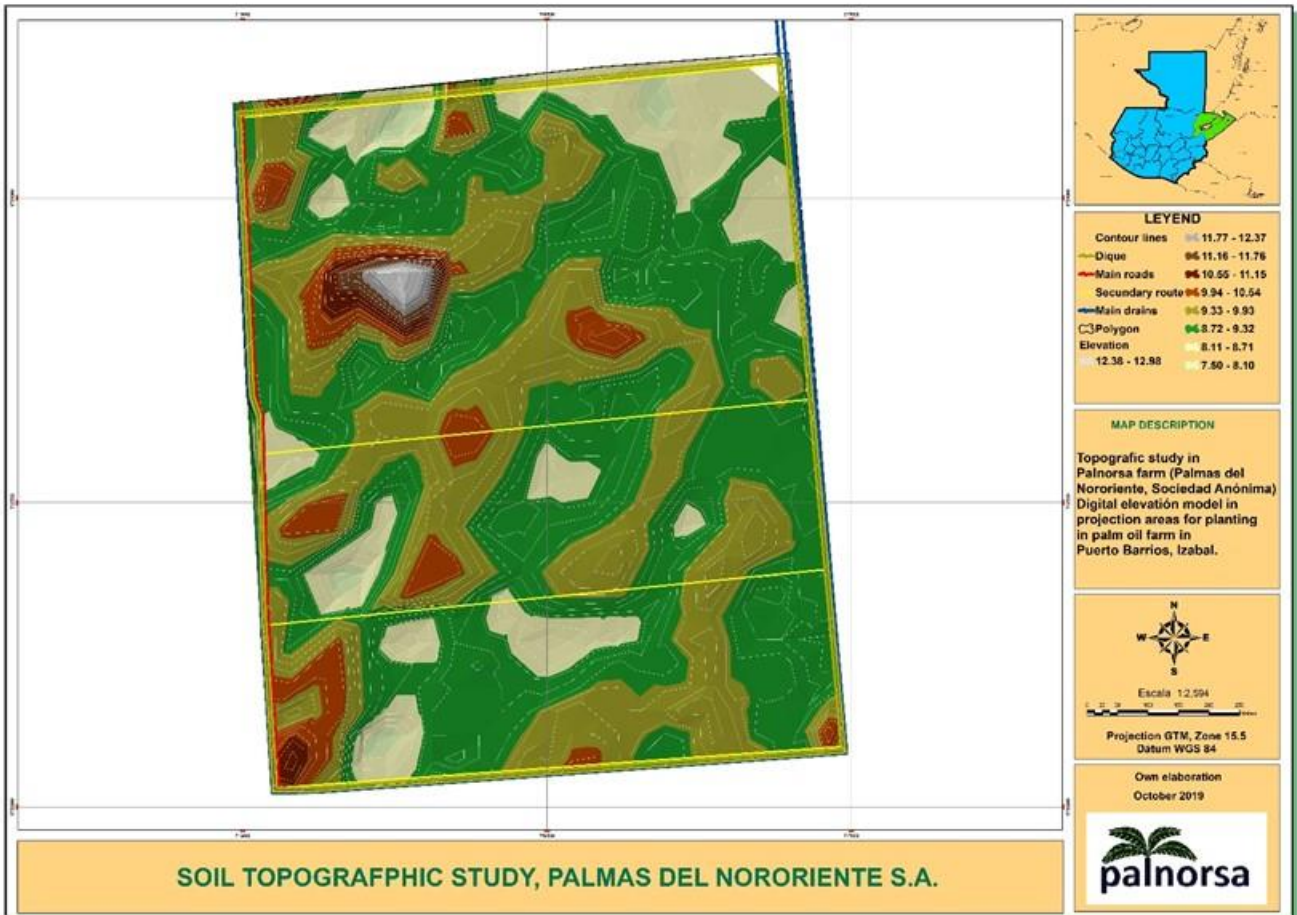


Topographic of Proposed NPP area Map- Julines farm

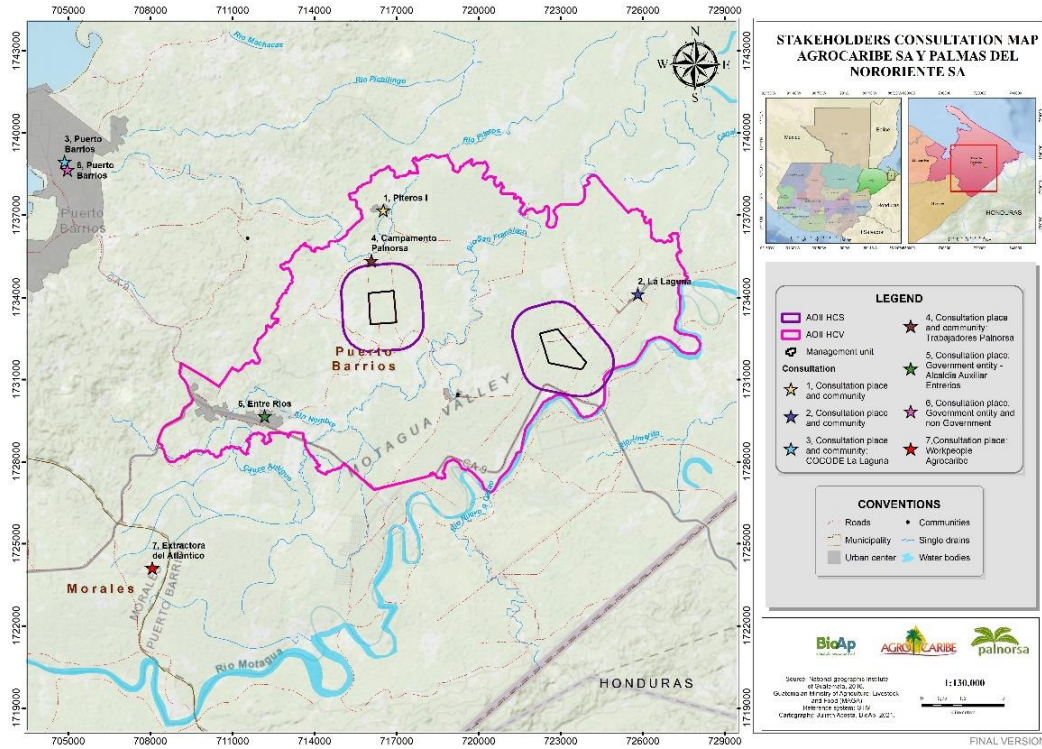




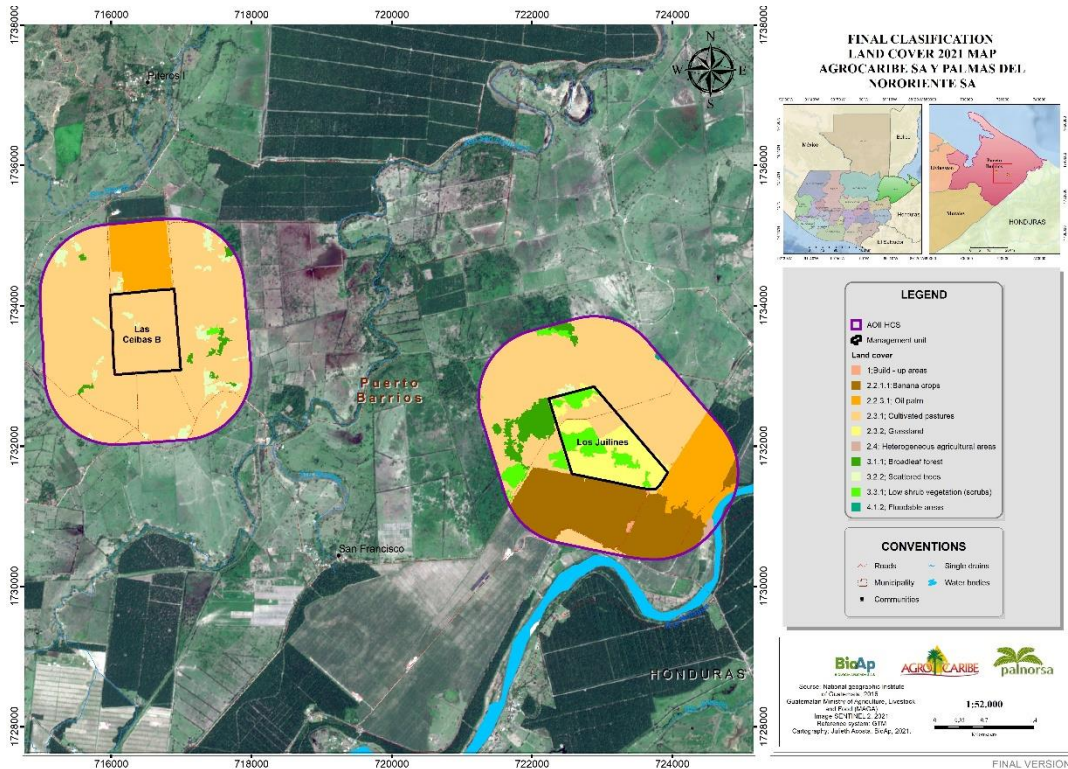
Topographic of Proposed NPP area Map. Las Ceibas B farm



- FPIC – Social Cartography of proposed NPP area Map



- Land Coverage of proposed NPP areas



### Section 3: SEIA

#### SEIA- SOCIO-ENVIRONMENTAL IMPACT STUDY

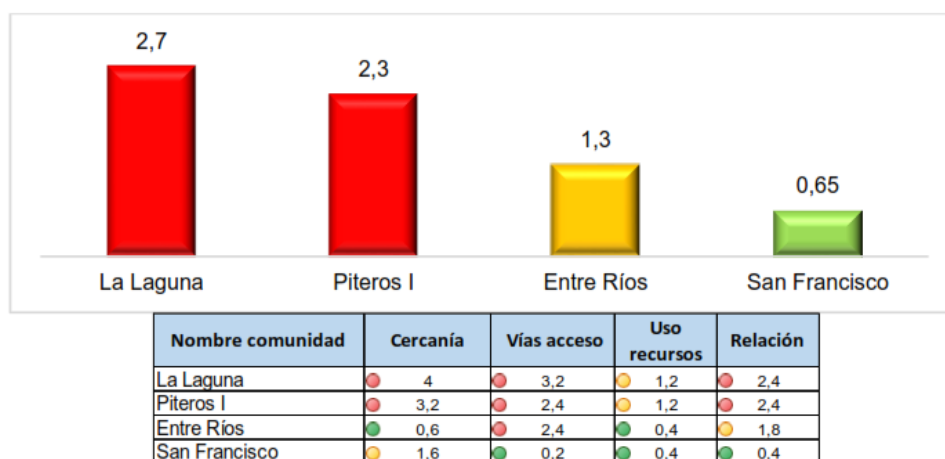
Date of assessment: November 2021

Name of Assessor: Juan Pablo Zorro - Erika Naileth Casallas Garzón (BioAp - Biología Aplicada S.A.S.)

Assessor Designation and Company: Juan Pablo Zorro (BioAp- Biología Aplicada S.A.) - Merclin Isaac López from Agrocaribe S.A.

There is evidence of an adequate process of identification and initial territorial analysis where the communities with the greatest potential to influence the development of new palm plantations. These communities are “La Laguna, Piteros I and Entre Ríos”. In addition, an analysis of the communities present in the area of influence was generated. From the scoping phase as well as the review of secondary sources, the different social actors within the scope of the study are identified, a ranking and prioritization of these actors is made through the methodology for the identification and analysis of stakeholders, in order to generate a filter for the consultation process for this study. In this way, the analysis and prioritization of different social actors such as communities, governmental entities and community associations is generated, with the purpose of prioritizing them for the social field work.

*Stakeholders Scope*



It was verified the summary of participants for the consultation process developed in the field phase, where the number of participants, the methodological tool applied and the photographic record were specified. A total of 71 stakeholders were contacted, including: communities in the area of influence, neighbour’s, government entities and non-governmental organizations. There is evidence on table with the summary of social fieldwork activities carried out during the study. Social cartography work was done with the members of the identified communities. These activities were executed between 11/26/2019 and 11/25/2019. According to the records of the main concerns of all the stakeholders that were consulted, a summary of the findings was made. In order to provide a real vision of the territory, a variation in the methodology proposed by Arboleda<sup>1</sup>, in which impacts and generating actions or situations (social aspects) are identified based on the results of the consultation process and the analysis of the territory, since the evaluation model is focused on the exact sciences (environmental) and not on the functioning of the social fabric that exists around the project under study. To this end, the impacts and aspects are proposed according to stakeholder categories.

<sup>1</sup> The basic evaluation methodology is based on the Jorge Arboleda Method developed by Empresas Públicas de Medellín (EPM), which was developed by EPM’s Natural Resources Planning Unit in 1986 for the purpose of evaluating the company’s water development projects. 1986, with the purpose of evaluating the company’s water development projects, but subsequently it was used to evaluate all types of projects of that and other companies. This methodology has been approved by the Colombian environmental authorities and by international entities such as the World Bank and the Inter-American Development Bank (IDB).



The social environmental impacts were determined following equation:  $C_s = C (P [axEM+bxD])$  . Where replacing the values of a and b we obtain:  $C_s = C (P [7.0xEM+3.0xD])$ . According to the scores assigned individually to each criterion, the absolute value of  $C_s$  will be greater than zero (0) and less than or equal to ten (10). The numerical value yielded by the equation is then converted into an expression that indicates the importance of the impact, assigning rating ranges according to the numerical results obtained. Table 24 shows the impacts obtained through the participatory dialogue between the consulting team and the representatives of the Piteros I and La Laguna communities attending the consultation process, where the different social aspects identified and with greater significance among the stakeholders are specified. The low values were identified for the San Francisco community, because despite being in the area of influence, it is not a population with direct interaction with the management units, since the probability of being affected in terms of proximity, use of roads and resources is limited.

Table 24. SEIA impacts

Impact	Class	Magnituded	Calculate
Changes in traffic	NEGATIVE	LOW	-3,8
Changes in living conditions	NEGATIVE	VERY LOW	-0,3
Changes in the local economy	POSITIVE	MEDIUM	4,8
Community relations	POSITIVE	LOW	2,5

**ENVIRONMENTAL IMPACT STUDY**

There is evidence of an environmental impact study that identifies aspects related to agricultural and maintenance activities associated with the proposed new palm plantations. The classification of the impacts identified was based on the matrix of importance proposed by Vicente Conesa Fernández (ad hoc), whose methodology addresses a wide range of criteria to determine the degree of impact made by each of the activities described in the corresponding environment. The criteria and scale of values for the parameters to be evaluated are shown in Table 12. The evaluation of the importance (I) is determined using the criteria previously mentioned and based on which the magnitude of the impact is determined; this is determined by adding the scores assigned to each of the factors that make up the matrix, using the following equation:

$$I = +/- (3IN + 2EX + MO + PE + RV + SI + AC + EF + PR + MC).$$

Using the above formula, values in a range between 13 and 100 are obtained for each activity or stage, whose individual importance ranges are presented below, together with the chromatic key for impacts and positive and negative activities. Thus, the importance of the impact being evaluated corresponds to the sum of the scores assigned to each of the activities.

The results of the Environmental Impact Assessment associated with each of the aspects or activities that cause environmental impacts, both negative and positive, are listed below..

- Negative impacts associated with changes in air quality, caused by aspects such as the layout of harvesting roads that generate particulate matter and the consumption of fossil fuels. During planting, it is generated by the elimination of weeds, clearing and cleaning of the land, fumigation. And in the fertilization of plantations due to the application of fertilizers, especially nitrogenous fertilizers.
- Negative impacts associated with changes in noise levels, caused by aspects such as the opening of harvest roads and the operation of agricultural machinery.

- Negative impacts associated with changes in soil quality, caused by aspects such as weed control, weeding and land clearing Chemical and product mixing Application of chemical products / Mixing and application of fertilizers / Application of agricultural products on the land.
- Beneficial impacts associated with the application of organic material and application of organic substrate (leaf recycling).
- Negative impacts associated with changes in soil structure. Caused by road consolidation and opening of harvesting roads Road consolidation / Excavation and removal of material Operation of machinery.
- Affectation in the fertility of soils caused by the Adequacy of the Terrain (Machinery) and removal of vegetation cover. Removal of ground cover / Removal of weeds, clearing and cleaning of the land, fumigation, etc. Bare soils
- Negative impacts due to changes in surface water quality caused by weed control, clearing and land clearing Chemical and product mixing. Excessive application of chemical products. Pest Control: Mechanical (Chemical) Application of agricultural products.
- Impact on the availability of water resources, caused by the use of irrigation to plant material that impacts on the consumption of water resources.
- Impacts due to changes in groundwater quality caused by weed control, weeding and land clearing Chemical and product mixing. Excessive application of chemical products / Delimitation of roads and paths (removal of vegetation cover) and land clearing, etc. Removal of vegetation cover.
- Negative impacts due to the loss of fauna/flora and the impact on P species of ecological, economic and/or cultural importance, generated by the adaptation of the land (machinery) and removal of vegetation cover. Handling of cutting tools (scythes, machetes and hooks, etc. / Delimitation of the road and paths and clearing of the land, etc.). Operation of vehicles and machinery for mechanical weed control (mowers) Excessive use of machinery.

#### **Section 4: HCV-HCSA Assessment; OR ALS HCV and Standalone HCSA assessment**

The HCS/HCV evaluation started with the contract on December 11, 2019. Evaluation started on September 19, 2019. First submission to ALS was on 08 June 2021. Ended on 03 September 2021 with the acceptance of the report by ALS.

ALS Satisfactory Date Obtained (ALS HCV & HCV-HCSA assessment): November 11, 2021

HCSA peer review completion date and link to HCSA summary report (HCSA website): November 11, 2021  
<https://hcvrn.egnyte.com/dl/ILHTwq81HW>

Name of Assessor: Juan Pablo Zorro - BioAp (Biologia Aplicada S.A.S.) ALS Number: ALS14011J Z

#### **HIGH CONSERVATIVE ASSESSMENT**

There is evidence of the Rapid Ecological Evaluation (REE) about the presence of rare, threatened, endangered and endemic species, as well as the conservation status of cover in the Management Units, based on a field study focused on the identification of RAP species (fauna and flora) in these areas. In order to obtain information about the flora and fauna species with potential distribution in the region, especially RAP species, lists, databases and available inventories were reviewed. It was compiled and reviewed the existing secondary information for the project area, which served as a reference for the preliminary diagnosis of vegetation cover in the study area. A database was also prepared with potential information on the vegetation of the area, which was used to establish the uses, endemism, distribution and threat categories of the flora species within the area of influence (Puerto Barrios - Izabal - Guatemala).

Due to the high degree of transformation of the ecosystems in the study area and the absence of forest or natural cover in the management units, the experience of the evaluation team and the literature reviewed, the presence of concentrations of RAP species was preliminarily discarded; however, sampling consisted of active searching routes, visual identification and the use of sound signals for birds, as well as the installation of a camera trap for mammals. The sampling transects for fauna attempted to cover the greatest number of vegetation classes and in the case of fauna species, the greatest number of habitats present in the evaluated area. The transects totalled



approximately 2500 linear meters. The survey area is relatively small, such as the coverage areas, the formula suggested in the HCS Toolkit was not used and 8 plots were estimated in each of the following classes (Cultivated Pasture, Natural Pasture and Shrubland).

### HCV ASSESSMENT RESULTS

**HCV 1: Species diversity.** HCV 1 was considered absent in both the IIA and the Las Ceibas B and Los Juilines Management Units because no land covers were identified with the capacity to host significant concentrations of biological diversity, mainly RAP, endemic or migratory species. For the identification of HCV1, the following aspects were evaluated: the concentration of RAP and/or endemic species, areas with significant richness of RAP and/or endemic species, and the spatial and temporal concentration of species. No significant evidence was found that the UM covers could harbor significant concentrations of RAP species. Although 6 species of fauna were recorded that are included in some category of threat, none are listed as VU or in higher threat categories and the categories in which they are found are precautionary. Also, these species were recorded in cover with high intervention, which can function as occasional transit zones but not as a refuge or habitat that guarantees the permanence of these species.

In the context of Guatemala national protected areas (Consejo Nacional de Áreas Protegidas [CONAP], 2017) the presence or proximity of to the Area of Indirect Influence was evaluated. In this aspect, it was found that there is a small overlap (80.34 ha) within the wider landscape between the “Punta de Manabique Wildlife Refuge (RVS)” and the HCV Area of Indirect Influence, it was also found that the protected areas “Bahía de Santo Tomás Definitive Sealing Zone” and “Manantiales Cerro San Gil Protected Reserve” are located approximately 9 km from the IIA, and the “Santuario de las Aves Natural Private Reserve” is 13 km from it. Regarding the results of the biodiversity study, a total of 16 species of fauna were recorded, of which 11 corresponded to the bird class and 5 to the mammal class. As for RAP species, 5 species were recorded that are included in some category of endangered or protected species. The species are in national risk category 3, which indicates that, although they are not currently in danger of extinction, they could become so if their exploitation is not regulated. One species, *Chondrohierax uncinatus*, is listed in CITES Appendix 1. As for the IUCN red list, all the species recorded are in the LC category. Table 23 shows the species registered in some category of threat,

TABLA 23. Biodiversity Results

Group	Scientific name	Common name	National risk category-			Global risk category											
			CONAP			CITES			IUCN					CMS			
			1	2	3	I	II	III	LC	NT	VU	EN	CR	I	II		
BIRD	<i>Campylopterus curvipennis</i>	Gorrión, Colibrí			X						X						
	<i>Chondrohierax uncinatus</i>	Gavilán Caracolero			X	X					X						
	<i>Crypturellus boucardi</i>	Perdiz			X						X						
	<i>Dendrocygna autumnalis</i>	Pijije			X						X						
Mammals	<i>Philander opossum</i>	Tacuacín cuatro ojos			X						X						
	<i>Procyon lotor</i>	Mapache			X						X						

CONVENTIONS: NATIONAL RISK CATEGORY: 1- Species in danger of extinction. 2- Species with distribution restricted to a single habitat type. 3- Species that, although they are not currently in danger of extinction, could become so if their exploitation is not regulated. GLOBAL RISK CATEGORY: LC- Least Concern, NT - Near Threatened, VU - Vulnerable, EN - Endangered, CR - Critically Endangered, DD Data Deficient.

\*Source: BioAp

**HCV 2: Landscape-scale ecosystems and mosaics, and Intact Forest Landscapes.** No Intact Forest Landscapes (IFLs) were identified (Potapov, et al., 2016) in and around the Area of Indirect Influence, with the closest IFL corresponding to the Columbia Forest Reserve protected area located in Belize, which is 81 km from the wider landscape assessed.

**HCV 3: Ecosystems and habitats.** HCV 3 is considered absent in the Management Units. However, it was identified as a present in the Area of Indirect Influence due to the identification of ecosystems, habitats and refuges that are in some category of risk at the national level.

**HCV 4: Ecosystem services.** HCV 4 was considered absent in the Management Units and present in the Area of Indirect Influence because during the consultation with stakeholders from La Laguna, Entre Ríos and Piteros communities, it was reported the use of water bodies such as the Motagua, San Francisco, Sinaí, Esperanza, Pacayal and Piteros rivers (some present in the Area of Indirect Influence of the HCV assessment) for agricultural purposes, although they also highlighted the high levels of water pollution that these sources present; they also reported some affectations related mainly to flooding events due to the increase in river levels and the passage of hurricanes and other tropical storms.

**HCV 5: Community needs.** According to the results obtained from the consultation process developed with the different stakeholders, HCV 5 was considered present at the landscape scale and absent in the Management Units (Figure 16), due to the identification of a water source within the community of Piteros I that provides indispensable services for the subsistence of the surrounding communities, supported by the results of the participatory workshops and interviews conducted with the different social actors. No critical use is identified within the MUs, since during the dialogue with the social actors and the participatory mapping, the communities of La Laguna and Entre Ríos stated that the water supply for human consumption is provided by deep wells within the land where their homes are located.

**HCV 6: Cultural values.** HCV 6 was determined to be absent in both the Area of Indirect Influence and the Management Units under study due to the analysis of secondary (UNESCO and the Ministry of Culture and Sports) and primary information obtained in the implementation of participatory mapping with the different stakeholders, as no globally or nationally significant sites, resources, habitats or landscapes are recognized for archaeological or historical reasons, of cultural, ecological, economic, religious or sacred importance, critical to the traditional culture of the local communities or indigenous peoples identified.

According to primary and secondary information analysed, it was found that the Area of Indirect Influence and the Management Units evaluated are not located on peat soils. Taking into account the taxonomic classification of soils of the Republic of Guatemala at a scale of 1:250,000 (*Ministerio de Agricultura, Gamadería y Alimentación*, 2000b), in the IIA of the HCV assessment, 2 soil suborders identified with codes Ia and Chp were identified, which belong to the Entisol and Ultisol orders, respectively.

### **HCS – HIGH CARBON STOCK ASESMENT**

**Land Category for HCS.** Land cover classification was performed following the methodology described in Module 4 of the HCS Toolkit v2.0, selecting option 3, based on satellite image analysis and forest inventory development. There is evidence of the use of Sentinel 2 satellite images since they are multispectral images with a spatial resolution of 10 m/pixel and with 13 working bands, they allow natural color and false color compositions or the composition of spectral indices at maximum resolution.



Selection parameters						
Satellite image	Spatial resolution	% Cloud coverage over evaluated area	Acquisition date Central	Latitude Central	Longitude Central	longitude Bands
Sentinel 2A	10 m	0	12/28/2019	15°46'49.08"N	88°21'16.57"W	2-3-4-8
Sentinel 2A	10 m	0	17/03/2021	15°46'49.08"N	88°21'16.57"W	2-3-4-8

*\*Source: BioAp*

Two steps were taken to adjust the land cover map and obtain the final version: a) Verification of land cover classification by reviewing PlanetScope 2019 satellite images with a spatial resolution of 3 m/Pixel. The digitalization of the coverages was verified and the necessary corrections were made and b) Verification tours of coverages control points during the scoping phase: 5 verification points were selected in the UM Los Juilines and 4 in the UM Las Ceibas B. These points were uploaded to the Garmin GPS and verified in the field.

For the design of the plots, it was followed the recommendations in module 4 of the HCS Toolkit. So, a double-circle plot was used. The larger circle has a radius of 12.61 m (500 m<sup>2</sup>) while the smaller circle or subplot has a radius of 5.64 m (100m<sup>2</sup>). Due to the type of land covers sampled, which are predominantly open lands with some scattered trees, mostly pioneer species, an allometric relationship was sought that would consider the variables of these species, rather than an equation designed for a forest type. The formula described by Ortiz, E. (1997) was used. This equation has been validated to estimate the aerial biomass of individual trees in the process of succession, partially shade tolerant and shade intolerant in a humid tropical forest in Central America. Once the biomass value (Bt) of each tree was obtained, the sum of these values in each plot was summed and converted to Tn/Plot. This value was then divided by 0.05 ha (area of each plot) to obtain the value of Tn Bt/ha in each plot. Then, the value of each plot was multiplied by 0.47 (constant for the calculation of carbon from biomass) to obtain the value of TnC/ha for each plot.

Finally, the value was averaged for each land cover class, the standard deviation of the sample was calculated and the 90% confidentiality limits were calculated. A one-factor, two-way ANOVA test was performed using Excel 365 software in order to identify if there were significant differences between the two cover categories (non-HCS). For the case of this study, we assumed the OL and S classes as the two paths or treatments and the samples as the average values of TnC/ha of each plot. In both cases the predominant cover is open land (OL) due to the pasture for livestock activities.

It was calculated the area occupied by each land cover class both in the UMs and in the AI HCS (Buffer 1k) based on the final land cover classification. In both cases the predominant land cover is open land (OL) due to pasture for livestock activities in the region. Within the Management Units, there are no potential HCS coverages, due to the historical use of the land for cattle ranching activities. However, following the methodology of the HCS approach, carbon estimates for the identified land cover classes are made below. The estimation of carbon stocks in the 1 km buffer area is not carried out because the land in this area is private property outside the operations of the companies AGROCARIBE S.A. and PALMAS DEL NORORIENTE S.A.

### **HIGH CARBON STOCK ASESMENT RESULTS**

There were no coverages that could be classified as HCS. However, when estimating carbon in the coverages present in the MU, the values of these coverages are very low (0.56 TnC/ha for shrublands and 0.07 TnC/ha for open lands) because the aerial carbon is represented by the presence of a few tree individuals belonging to pioneer species, normally of fast growth and low biomass.

The HCS approach uses a decision tree analysis of HCS forest patches to determine their importance and prioritization, using remote sensing (GIS) data and field work; the ultimate goal is to identify whether these patches should be included in the Integrated Conservation and Land Use Plan (ICLUP). The decision tree consists of 14 steps.

- Step 1: The purpose of this step is to identify areas of customary use, community garden or orchard areas, or future agricultural lands and overlay data for other areas if available, including HCV areas, peatlands, and riparian zones. In the area assessed (HCS IIA) no HCS cover, customary use areas, community garden or orchard areas or future agricultural lands were identified, so only HCV areas and riparian zones (HCV 4) that were identified only outside the Management Units, within the HCS IIA, are considered in this step.
- Step 2: The purpose of Step 2 is to extract all HCS forest classes and combine patches that are physically connected. No HCS forest classes or patches that can be connected were identified in the Management Units. Although in the HCS IIA (buffer 1 km) there are potential HCS classes, they are outside the management area of the organizations, so it is not possible to manage in these areas.
- Step 3 - Step 10: Because no HCS forest classes were identified within the evaluated Management Units, steps 3 to 10 are not applicable.
- Step 11: In this step, HCV areas 1 - 4, peatland areas, riparian zones and any other protection or conservation areas should be "merged with all HCS classes that have been identified as "indicative conservation" in steps 1 - 10 of the decision tree, in order to provide an additional "indicative conservation" area that will form the basis of the following steps to maximize feasibility and optimization" (Rosoman, Sheun , Opal, Anderson, & Trapshah, 2017). In this case, only HCV 3 and HCV 4 areas (riparian zones) present in the HCS IIA were identified, but outside the boundaries of the Management Units (Figure 19).
- Step 12: Because there are no HCS coverages within the Management Units, this step is not applicable considering that there are no forest patches to connect between the MUs and the broader landscape.
- Step 13: This step finalizes the proposed Integrated Conservation and Land Use Plan (PICUT). The final results evidenced that the total area of the additional zones for conservation is 0.90 hectares, while the area of the zones to be developed is 246.11 hectares, as shown in Table 30.

Table 30. Summary of conservation areas and potential planting areas.

Type	Área (ha)
Study area	247,01
HCV areas	0,00
HCS conservation areas	0,00
Peatlands	0,00
Non-HCS conservation areas (isolated trees)	0,90
Community lands	0,00
Total conservation areas	0,90
<b>Potential planting areas</b>	<b>246,11</b>

*\*Source: BioAp*

#### Section 5: FPIC

**The FPIC was performed from November 25 to 29, 2019. The presentation of results to stakeholders took place on November 16, 17 and 18, 2020.** There is evidence of the previous approach process carried out with the communities of Piteros I and La Laguna, as well as with the representatives of FUNDAECO, the Auxiliary Mayor's Office of Entre Ríos and the Secretary of Agrarian Affairs of Puerto Barrios. This activity was conducted by AGROCARIBE S.A. and PALMAS DEL NORORIENTE S.A sustainability leaders together with the consultant team. A dialogue was also held with the members of COCODE as a community authority democratically elected by the members of each of the villages within the area of influence of the new plantations. The follow-up and orientation of the consultations is performed by the consulting team, as a precaution that this will not be used as a mechanism of persuasion for the attainment of personal benefits of the community representatives.



Summary of participants stakeholder consultation

Category	Date	Stakeholder	Activity	Participants	Total
Communities	26/11/ 2019	COCODE La Laguna	Workshop /Social Cartography	4	57
	27/11/ 2019	Aldea La Laguna	Surveys	15	
	27/11/ 2019	COCODE Piteros I Finca San Felipe Finca Bella Vista Docentes Escuela Oficial Rural Mixta Aldea Piteros I Organización de padres de Familia Piteros I	Workshop /Social Cartography	23	
	28/11/ 2019	Aldea Piteros I	Surveys	15	
Government Entities	25/11/2019	Ministerio de Ambiente y Recursos Naturales	Interview	5	8
	25/11/2019	Alcaldía Auxiliar de Entre Ríos	Interview	1	
	26/11/2019	Secretaría de Asuntos Agrarios	Interview	1	
	29/11/2019	Consejo Nacional de Áreas protegidas	Interview	1	
NGO`s	25/11/2019	FUNDAECO	Interview	6	6
Collaborators	26/11/2019	Trabajadores Palnorsa	Surveys/ Workshop	11	21
	29/11/2019	Trabajadores Agrocaribe	Surveys	10	

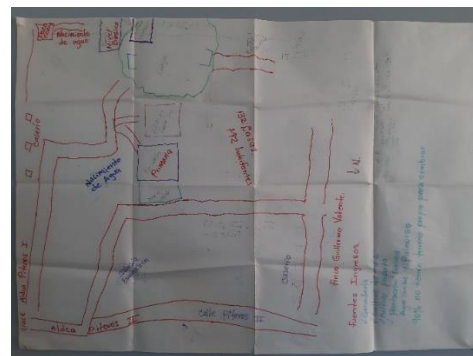
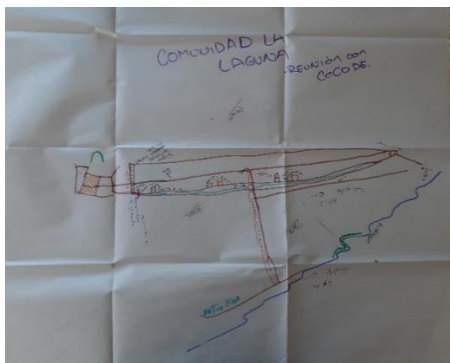
It was verified an initial territorial identification and analysis process developed that specifies the communities with the greatest potential to influence the development of the new plantations. The new oil palm plantation project was presented through an informative document specifying aspects such as the scope of the project, activities to be developed and the role of the community.

Using the methodology for the identification and analysis of stakeholders, a prioritization and ranking of these actors was made in order to generate a filter for the consultation process for this study. In this way, the analysis and prioritization of different social actors such as communities, governmental entities and community associations is generated, prioritizing them for the social field work.

### FPIC Methodology

Methodological tool	General description
Formal and semi-structured Interviews	This tool allows generating an open dialogue with the different social actors, knowing their perceptions, opinions and suggestions regarding aspects present in the territory, such as daily economic activities, biodiversity concentration zones, hunting and fishing practices, the use of flora and fauna resources and the transformation of these resource zones over time, sites or cultural conditions of each community. This tool was implemented by representatives of government entities and non-governmental organizations, who expressed their knowledge of the territory in light of the regulations
Surveys	Surveys are a method of data collection based on a series of standardized questions that are asked to a representative sample of the territory with the purpose of revealing opinions, characteristics or specific facts (ECLAC, 2012). The use of this tool is generated from the development of a questionnaire. The survey inquired about general aspects of the communities, such as: living conditions (access to public services), economic activities, sites of cultural or ceremonial importance, use of resources and perceptions about the implementation of the project.
Participatory Workshops / Social Mapping	The implementation of social cartography has variations according to the type of community and its conception of the territory, which allows generating a graphic representation of the relationships between the community, resources and other social actors in the area. This cartography includes perceptions at the group level, regarding the location of the natural or legal limits of the community in relation to the execution of the project; location and identification of the bodies of water (rivers, streams, springs, and streams and their current status (present conflicts, management and use); of access roads; of representative sites of landscape, religious and cultural importance; location of crops, livestock, fishing and hunting activities, identification of eating habits and use of available resources. In addition, the presence of species of fauna and flora, or other elements belonging to the daily life of the population is also investigated. The tool was implemented with the communities of Piteros I and La Laguna..

\*Source: BioAp





**FPIC – FREE, PRIOR AND INFORMED CONSENT RESULTS**

In general terms, all the communities are in agreement with the new oil palm plantations proposed by AGROCARIBE S.A. and PALMAR DEL NORORIENTE S.A. This is evidenced by the results of the social cartography and participatory mapping, areas of community resource such as the Motagua River, Piteros River, San Francisco River are outside of the Management Units set aside for the new oil palm plantations.

The local communities and other stakeholders do not oppose the development of the new plantations, as they report that the area is private property and consider it an opportunity to obtain income as long as training is provided on the work to be carried out. They also recognize the contributions made by both companies to improve the quality of life, which increases their approval of the project.

In accordance with the consultation process developed with the communities, the community authorities prepared minutes of the meeting, which were read and signed by all in agreement. Among the main comments found in the minutes are the following.

COMMUNITY	MINUTE AGREEMENT
La Laguna (Anexo 1)	<ul style="list-style-type: none"> <li>- Access to employment</li> <li>- No deforestation</li> <li>- Maintenance of community road</li> <li>- Support in the implementation of community projects.</li> </ul>
Piteros I (Anexo 2)	<ul style="list-style-type: none"> <li>- Include female personnel in palm activities.</li> <li>- Support in case of an emergency or accident for transportation of community members</li> <li>- Maintain a good percentage of labor from the village.</li> <li>- Support for road maintenance in alliance with the population of Piteros I.</li> </ul>

**Estudios de Altos Valores de Conservación y Estudio de Impacto Socio-Ambiental para las Nuevas Plantaciones de Palma de Aceite de las empresas Agrocaribe y Palmnorsa, Puerto Barrios, Izabal, Guatemala**  
Acta No. \_\_\_\_\_

**Objetivo:** Realizar el proceso de acercamiento a partes interesadas con el fin de recopilar información en el territorio que permita identificar Altos Valores de Conservación e impactos socio-ambientales presentes en el área de influencia de los predios destinados para Nuevas plantaciones de palma de aceite de las empresas Agrocaribe y Palmnorsa, mediante la implementación de herramientas participativas con diferentes actores institucionales y comunitarios de la zona objeto de estudio.

Fecha	28-11-2019	Municipio/lugar	Puerto Barrios
Parte interesada	La Laguna	Número de asistentes	4
Actividad desarrollada	Entrevista	Taller	X Encuesta
Desarrollo de la actividad	Dialogo Participativo		

Se reunieron los representantes del Consejo y Comité de Mujeres con el equipo consultor de BioAp, en donde se genera un dialogo referente a las condiciones de vida de la comunidad, tales como: número de habitantes, acceso a recursos (Ea, tecnología), acceso a servicios públicos, presencia de cultura de banana, papaya y aguacate.

Se realiza un mapa de la comunidad donde se ubican las vías de acceso, sitios de importancia de agricultura y religión, zonas de acceso a tierra, zonas de recreación.

Algunas inquietudes y preocupaciones fueron:

- Temas de acceso a empleo, deforestación,
- mantenimiento de caminos, apoyo en ejecución de proyectos de la comunidad (puerto).
- No indican afectaciones frente al paisaje,
- Miedo por cambios en el agua (poco de consumo).

Hacen constar la presente acta:  
 Firma y cargo de la parte interesada: *[Firma]*  
 Firma y cargo del representante de la empresa palmnorsa: *[Firma]*

Nota: Se adjunta soporte del desarrollo de la presente acta como fotografías, listado de asistencia o audios.

**Estudios de Altos Valores de Conservación y Estudio de Impacto Socio-Ambiental para las Nuevas Plantaciones de Palma de Aceite de las empresas Agrocaribe y Palmnorsa, Puerto Barrios, Izabal, Guatemala**  
Acta No. \_\_\_\_\_

**Objetivo:** Realizar el proceso de acercamiento a partes interesadas con el fin de recopilar información en el territorio que permita identificar Altos Valores de Conservación e impactos socio-ambientales presentes en el área de influencia de los predios destinados para Nuevas plantaciones de palma de aceite de las empresas Agrocaribe y Palmnorsa, mediante la implementación de herramientas participativas con diferentes actores institucionales y comunitarios de la zona objeto de estudio.

Fecha	29-11-2019	Municipio/lugar	Escuela Piteros
Parte interesada	Piteros	Número de asistentes	23
Actividad desarrollada	Entrevista	Taller	X Encuesta
Desarrollo de la actividad	Dialogo Participativo		

La comunidad de Piteros se reúne con el equipo de BioAp donde se realiza la presentación del proyecto de implementación del cultivo de Palma. Allí se desarrollan dos grupos, el primero de ellos realiza un mapa de la comunidad, donde se indican aspectos de la comunidad (Aten), sitios de importancia, recursos naturales, generalidades de afectaciones con el cultivo.

El segundo grupo de apoyo percopaciones frente al cultivo de palma teniendo en cuenta en la empresa se palmariza, resultando en apoyo positivo, requisitos y recomendaciones.

Por último se hizo una socialización de los resultados de ambos grupos y se complementa información.

Hacen constar la presente acta:  
 Firma y cargo de la parte interesada: *[Firma]*  
 Firma y cargo del representante de BioAp SAS: *[Firma]*

Nota: Se adjunta soporte del desarrollo de la presente acta como fotografías, listado de asistencia o audios.

Source: BioAp- Agrocaribe S.A.

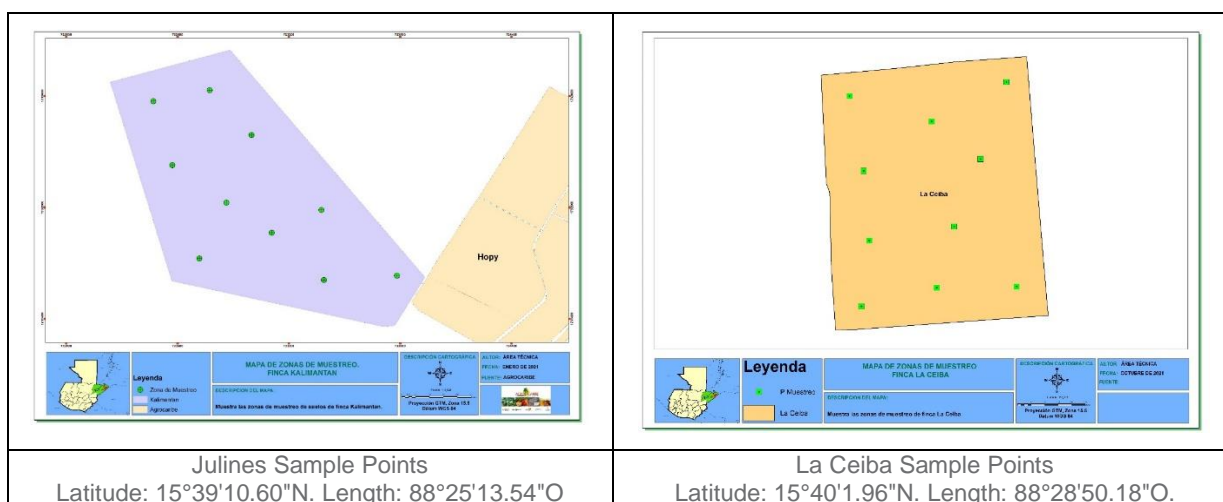
## Section 6: Soil and topography

Date of Assessment: November 2021

Name of Assessor: Juan Pablo Zorro - Fabio Ernesto Álvarez Morales (BioAp - Biología Aplicada S.A.S.)

Assessor Designation and Company: Merlin Isaac López – Agrocaribe S.A.

**Soil Analysis Sample Points.** Sampling and soil analysis is a technique by which physicochemical parameters are determined. Fertility, productive capacity can be determined and it is the basis for defining the dose of nutrients to apply. The sampling date was 01/05/2021. A total of 10 sampling points were located within the Julines farm, and 10 points in the La Ceiba farm.



**Sampling Procedure:** a) Clean the surface of the site, removing only plant debris and living cover on the soil. b) With the help of a drill, a hole was drilled to a depth of 30 cm and placed in a clean bucket. c) The following sampling points were located and procedure a and b were repeated, until completing the 10 subsamples that make up the composite sample. The samples and counter samples were packed in polyethylene bags.

- Shipment of Julines sample to Agro Laboratorios S.A. on 01/22/2021. Forming part of the work order 403 of Agro Laboratorios S.A. position 29.
- Shipment of La Ceiba sample to Agro Laboratorios S.A. on 01/22/2021. Forming part of the work order 403 of Agro Laboratorios S.A. position 51

**Slope Analysis Method.** There is evidence of a digital elevation model made for the analysis of slopes present in the areas of the new oil palm plantations. Sources with a resolution of 15 m were used in order to represent the terrain as detailed as possible. The construction of a shadow map was done and processed for base mapping after conducting a survey analysis to determine the slopes present in the study areas. Slope and shape are variables extracted from the DEM (Digital Elevation Model) using specific algorithms (Chan, K, 2004). This variable is highly reliable when subjected to a geomorphometric and hydrological analysis of the terrain (Jordan, 2008). The processed DEM was digitized to determine the slope of the areas and, finally, the graphical output was generated. Once the slope map was obtained and classified, it was reclassified into 9 classes, ranging from 0° to 90°. The processing was carried out in ArcGIS for desktop with ESRI license (Version 10.5).

**Slope Study Result.** The topography of the terrain allowed us to identify that the slope present in the areas of the proposed new oil palm plantations are characterized by slopes between 0 and 5°, being these the predominant one in the study area, occupying 85.09% of the Management Unit "Los Julines" and 94.60% of the Management Unit "Las Ceibas B". Similarly, moderate slopes have been identified, with slopes between 5 and 10° degrees, in 14.25% of the Los Julines MU and 5.32% of the Las Ceibas B MU, and finally, there are very small areas with slopes between 10 and 15° degrees, corresponding to 0.66% of the Los Julines MU and 0.08% of the Las Ceibas B MU.

**Soil Analysis.** The soil analysis for the Management Units identified the presence of 1 soil unit corresponding to Entisol (Ia), occupying 100% of each Management Unit. Entisol order have little or no evidence of development in their profile and consequently of genetic horizons due to extreme conditions, such as relief (which affects erosion or, alternatively, surface deposition of mineral and organic materials) and, on the other hand, conditions such as excess water (Ministry of Agriculture, Livestock and Food, 2000b).

## Informe de Resultados

KM 276 RUTA AL ATLÁNTICO, FINCA BERLIN, ALDEA CHAMPONA, MORALES, IZABAL

Correo: [agrolab@agrocaribe.com](mailto:agrolab@agrocaribe.com)

Teléfono: 22073050



REP\_LABREPORTADA.rng

Cliente:	AGROCARIBE, S.A.		
Dirección:	VIA 5 4-50 ZONA 04 EDIFICIO MAYA 4TO. NIVEL OFICINA 409		
Contacto:			
Correo Electrónico:	<a href="mailto:info@agrocaribe.com">info@agrocaribe.com</a>	Teléfono:	22073000

## Orden de Trabajo

Número de Orden:	403	Fecha de Ingreso de Muestras:	22/01/2021
Tipo de Muestra:	S1	Lugar de Recepción:	AGROLAB
Tipo de Análisis:	S1 - SUELO COMPLETO	Cantidad de Muestras:	50
Fecha de Análisis de Muestras:	10/02/2021	Fecha de Finalización:	14/02/2021

Fecha y hora: 13-ENE-2022 12:08:17

As a conclusion, taking into account the identification and edaphological description for each study unit, no soil units are identified that can be classified as marginal or fragile, peat soils or areas with steep slopes (>25°).

## Section 7: Greenhouse Gas (GHG)

Date of Assessment: November 2021

Name of Assessor: Juan Pablo Zorro - Maria Paula Romero (BioAp - Biología Aplicada S.A.S.)

Assessor Designation and Company: Merlin Isaac López – Agrocaribe S.A.

### Estimation of GHG emissions with the GHG Calculator for NPPs

There is evidence of the use of the Spanish version of the "**New Development GHG Calculator spreadsheet**" tool **2017 version**". This spreadsheet has 16 tabs, 7 of which must be filled in. These are the Oil Palm Fresh Fruit Bunches production. annual fuel consumption, the expected annual fertilizer consumption, conservation areas sequestration data and Palm Oil information. For this NPP presented by the companies AGROCARIBE S.A. and PALMAS DEL NORORIENTE S.A., it does apply since it is planned to send all the fruit generated from the new developments to the Palm Oil Mill of AGROCARIBE company. Therefore, the projected data of this plant must be indicated, in terms of CPO and PK production (t/year), the estimated methane production from EEAP and the fuel consumption in the extraction plant as well as the electricity consumption of the network. LUC emissions: information on the areas to be cleared for the establishment of new plantations, as well as the estimated carbon stocks in the existing ground cover.



CARBON STOCK. For the analysis of land cover and biomass estimation, SENTINEL satellite images were used as base information supported by official vector information of land cover in the digital resources of the National Geographic Institute of Guatemala (IGN). All the information was organized and analyzed jointly<sup>2</sup>. A visual interpretation was performed on the images, superimposing the land cover verification points and the land use shape; this process was carried out by making band combinations. For the interpretation, the combinations 3,2,1 for natural color and 4,3,2 for infrared of vegetation state were used. The Tons of carbon (Tc) were quantified according to the type of cover; the following equation was used to determine the total tC:  $tC = tC/ha \times \text{area}$ . If the default values and default RSPO land cover classes are used, there is no need to conduct field sampling and the PalmGHG Calculator could calculate GHG emissions based on the land cover classes present and the size (in hectares) of each land cover class. The summary of results tab presents the following information: field emissions and sinks for small producers, field emissions and sinks for use in large-scale operations, emissions generated in the extraction plant and total emissions, tCO<sub>2</sub>e (field and extraction plant). The information filled in corresponds to the expected yield and production values for the new developments.

### CARBON STOCKS & GHG CALCULATION FOR NPP RESULTS

**CARBON STOCKS RESULTS.** According to the interpretation of vegetation cover, the study area is made up of the following coverages: low shrub vegetation (scrub and/or guamil), natural grasslands, cultivated pastures and scattered trees. **The "Los Juilines" farm has three (3) types of coverages corresponding to low shrub vegetation: shrublands with an area of 32.53 ha, cultivated pastures (grasslands) with 26.78 ha and finally natural pastures (grasslands) with 80.61 ha. And the farm "Las Ceibas B" has an area of 107.10 ha, where two (2) types of coverages were identified: scattered trees (grasslands) with 1.41 ha and finally cultivated pastures (grasslands) with 105.68 ha.**

#### *Vegetation Cover Results*

Vegetation Cover	RSPO Vegetation Cover Class	Total area (ha)	tC/ha	Total tC
low shrub vegetation	Shrublands	32,53	46	1.496,16
scattered trees	Grasslands	214,48	5	1.072,40
natural pastures				
cultivated pastures				
<b>TOTAL</b>		<b>247,01</b>		<b>2.568,57</b>

Carbon stocks were estimated according to the values established by RSPO, in this case for shrublands they are 46 tC/Ha and for pastures it is 5 tC/Ha. Based on this data, a total of 2,568c57 tC was obtained. 1496,16 Tc from Shrublands and 1072,40 tC/ha from grasslands.\*

Land Coverage	area (ha)	tC/ha	Total tC
Shrubland	32,53	46	1.496,16
Grassland	107,39	5	536,93
<b>TOTAL LOS JUILINES</b>			<b>2.033,09</b>

Land Coverage	area (ha)	tC/ha	Total tC
Grassland	107,10	5	535,48
<b>TOTAL LAS CEIBAS B</b>			<b>535,48</b>

<sup>2</sup> The processing of the information was carried out under the ArcGIS desktop system licensed by ESRI (Version 10.5), Quantum GIS (QGIS desktop version 2.12.1) and ERDAS IMAGINE.

## GHG SCENARIOS

Based on the results obtained above, it is indicated that, for the new plantations, the scenario that best adapts to the conditions for development is Scenario 1 with emissions of **-1,470 tCO<sub>2</sub>**, because it is better adjusted to the operational capacity of the company and the vegetation cover found in the evaluated properties.

In the case of emissions generated by the extraction plant, emissions are 327.23 tCO<sub>2</sub>. It is important to mention that in Scenarios 1 and 2 the same EEAP treatment system is used, which are energy cogeneration and methane flaring, which, as has been mentioned, favours the company, since this activity will allow emissions to be greatly reduced and credits will be obtained.

Scenario	Description
Scenario 1	Potential areas (Grasslands, Shrublands) for new plantations cleared for oil palm, except all forest areas. All disturbed forests are to be conserved, and HCV areas are not to be cleared. There is methane capture at the extraction facilities.
Scenario 2	Potential areas (pastures) for new plantations cleared for oil palm, except for all conservation areas. There is methane capture at the Extractor's facilities..

Activity	Scenario 1	Scenario 2
	t de CO <sub>2</sub> e	t de CO <sub>2</sub> e
Land Clearing	102,57	42,72
Crop Sequestration	-2.258,84	-1.921,97
Fertilizers	163,77	139,35
N <sub>2</sub> O	183,27	155,94
Field Fuel	13,37	5,76
Peat land	0,00	0,00
Conservation Credits	-1,35	-50,15
<b>Total</b>	<b>-1.797,21</b>	<b>-1.628,35</b>
<b>POM emissions and credits</b>	<b>t de CO<sub>2</sub>e</b>	<b>t de CO<sub>2</sub>e</b>
EEAP	106,38	90,52
POM Fuel	548,80	466,95
Purchased electricity	0,00	0,00
Credit (excess electricity exported)	-314,06	-314,06
Credit (sale of biomass for energy)	-13,89	-11,82
<b>Total</b>	<b>327,23</b>	<b>231.60</b>
<b>Total emissions, tCO<sub>2</sub>e (field and POM)</b>	<b>-1.470</b>	<b>-1.397</b>

*\*Source: BioAp*

## Section 8: Land Use Change Analysis (LUCA)

Date of Assessment: November 2021

Name of Assessor: Juan Pablo Zorro - Fabio Ernesto Álvarez Morales (BioAp -Biología Aplicada S.A.S.)

Assessor Designation and Company: Merclin Isaac López – Agrocaribe S.A.

### LAND USE CHANGE ANALYSIS METHODOLOGY

There is evidence of the use of "Landsat" satellite images. These are multispectral images with a resolution of 30 meters for the interpretation of land use or land cover. Land use classification was performed using the "visual classification" method. The images were downloaded from the site: <http://earthexplorer.usgs.gov>. Eventually it was necessary to use Google Earth images from 2003-2018 and Bing images to verify the correct interpretation of the land cover. This was done with the ArcBruTile application for ArcGIS software.

#### *Landsat Satellite images used for LUCA*

Satellite Image	Path	Row	Date of image	Bands
Landsat 7	019	049	2005-12-15 (2006-04-06*)	4,3,2
Landsat 7	020	049	2007-12-05 (2007-10-18*)	4,3,2
Landsat 7	020	049	2009-12-10 (2009-11-24*) 2010-01-11 (2010-02-12*)	4,3,2
Landsat 7	020	049	2014-06-23 (2014-08-26*)	4,3,2
Sentinel 2	N0206	R040	2019-12-28	8,4,3

*Source: BioAp \*Gap Filling Image*

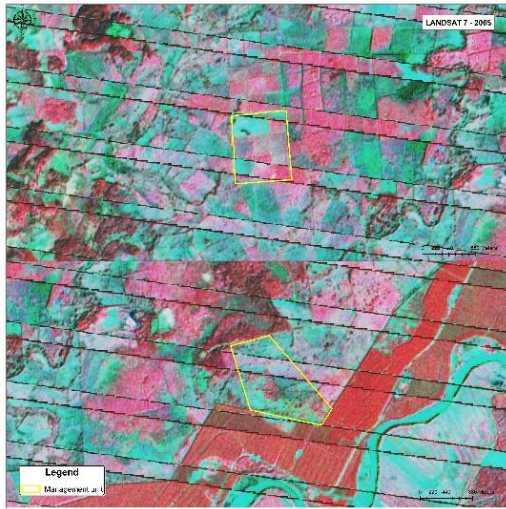
The 2005, 2007 and 2009 Landsat images contained an error commonly known as 'gaps', which are invalid data bands caused by faults in the remote components of the sensor. To fill in the data gaps, two or three images were used for each date. **It was used two Landsat images from the dates 24/11/2009 and 10/12/2009, therefore they cover the period 2007-2009. The 2010 landsat images were used for gap analysis processing to fill the "gaps" in the 2009 images caused by satellite banding. The 2010 images were processed together with the late 2009 images to be the baseline for the 2010-2014 analysis.** The satellite band combination for true color was 321. For false color the bands were combined to obtain Landsat ETM + 432 and Landsat 8 543 combinations. The cover classification was performed using the methodology of the Ministry of Agriculture, Livestock and Food (MAGA) used in the 2010 land cover and land use map of the Republic of Guatemala at a scale of 1:50,000. During the field surveyor, nine land cover points were verified in order to validate the final land cover map and to locate the sites for the forest inventory. The points were previously located on the initial land cover map and loaded to the GPS. In the field, the points were located as close as possible and the existing coverage was verified vs. that interpreted in the satellite images. For each identified land cover class (6) a number of sampling points were established, covering a total of 86.

#### *RSPO Land Coverage analysis*

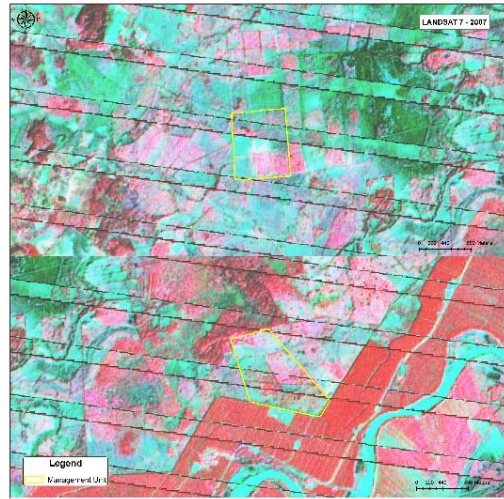
LAND COVERAGE	DESCRIPTION OF LAND COVERAGE	RSPO Coefficient
Open areas	Areas without vegetation cover or with sparse vegetation cover and natural sands	0
Clean pasture	Includes clean pasture and wooded pasture. Typically composed of pastures managed or cultivated for livestock activities	0
Pasture with shrubland	Pasture intervened by local activities, livestock and small transient crops, dominated by the presence of scattered shrubs.	0
Secondary forest	Land cover dominated by successional vegetation.	0,7
Shrubland	Land cover dominated by shrub vegetation. Usually the result of unmanaged or abandoned pasture areas	0
Urban-Industrial	Includes industrial areas, urban areas, roads or other constructions.	0



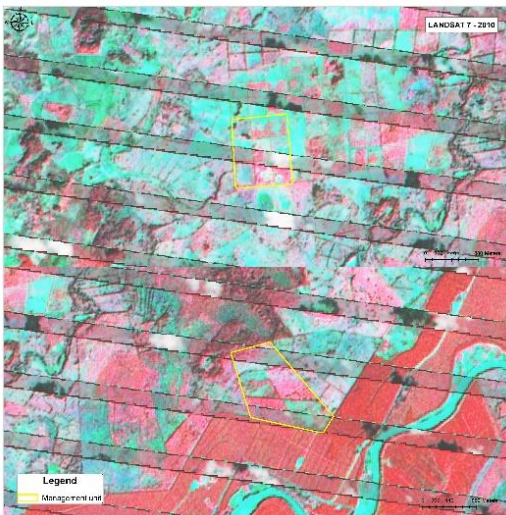
Satellite imagery used in LUCA



Landsat 7. A1-2005



Landsat 7. A1-2007



Landsat 7. A1-2010



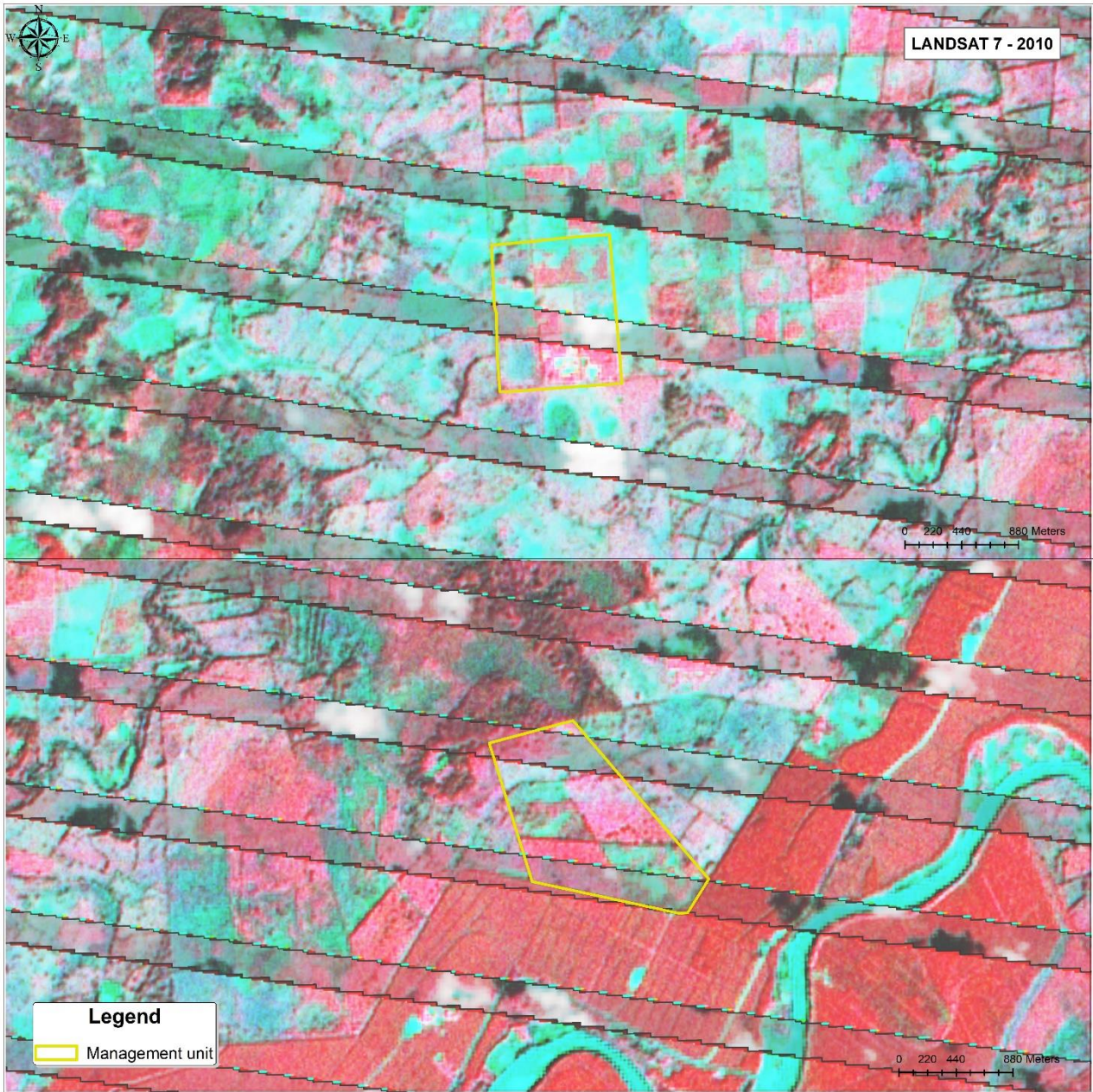
Landsat 7. A1-2014



SENTINEL. A1-2019 (Current image for field verification)



LANDSAT 2010 IMAGE



Source: BioAp

### **LAND USE CHANGE ANALYSIS RESULTS**

There is evidence of the Annex III and IV LUCA Land Use Change Analysis Reporting Checklist Table submitted by Agrocaribe S.A. The first analysis concluded that no riparian remediation zones were found within the boundaries of the Management Units evaluated because the bodies of water within the plantations correspond to drainage canals used to capture water for irrigation or rainwater conduction.

According to the multi-temporal analysis conducted by the BioAp consulting team, NO compensation or remediation responsibility was identified for the farms "Los Juilines " and "Las Ceibas B".

#### LAND USE CHANGE DATA

Land Use Coverage	Year/Area (ha)				
	2005	2007	2010	2014	2020
Clean pastures	151,25	151,25	214,03	214,03	134,28
Open land	-	-	-	-	0,84
Pastures with shrubs	75,07	75,07	2,97	2,97	77,18
Secondary forest	0,98	0,98	0,98	0,98	0,98
Shrubland	19,15	19,15	28,48	28,48	33,17
Urban – Industry	0,55	0,55	0,55	0,55	0,55
Total	<b>247,01</b>				

*\*Source: BioAp*

### **Section 9: Conclusions**

*Control Union (Malaysia) Sdn. Bhd. and lead auditor responsible for document review and field visit, confirm that AGROCARIBE S.A. and PALMAS DEL NORORIENTE S.A. has complied with the RSPO New Planting Procedures. This conclusion is based on the review of the reports for Social Environment Impact Assessment, HCV Assessment, Land Usage Change Analysis and High Carbon Stock and GHG Assessment that include the analysis of the carbon stock on land use change, carbon emissions and sequestration. Also, during the visit to the farms where the new plantations have been proposed, it was possible to confirm the state of the land cover as grasslands and shrublands with the presence of some scattered trees. There is no presence of protected species or ecosystems of high conservation value, and there is no evidence of water springs in the areas surrounding the study area. Communities' consultations were arranged by the company's staff responsible for sustainability certifications.*

*It was verified that the results of the NPP process and the content of the assessments and plan(s) is comprehensive, of professional quality and comply with the relevant RSPO Principles, Criteria and Indicators and the New Planting Procedures.*

#### **General Results:**

- In the Los Juilines MU, no HCV areas, HCVMA, HCS forests, local community lands, peatlands or NO HCS conservation areas were identified.*
- In UM Las Ceibas B, no HCV areas, HCVMA, HCS forests, local community lands or peatlands were identified, although a NON HCS conservation area of 0.90 ha of national coverage "Scattered Trees" was found.*
- In the Los Juilines MU, the potential area for oil palm planting is 139.91 ha, i.e., 100% of the assessed area. 100 % of the evaluated area.*
- In Las Ceibas B, the potential oil palm planting area is 106.19 ha, i.e. 99.15% of the evaluated area.*



<b>Results</b>	<b>UM Los Juilines</b>				<b>UM Las Ceibas B</b>			
Farm Area	139,91 ha				107,10 ha			
National Vegetation Coverages	Cultivated pastures		26,78 ha		Scattered trees		1,41 ha	
	Natural pastures		80,61 ha		Cultivated pastures		105,68 ha	
	low shrub vegetation		32,53 ha					
Carbon stored in AGB and BGB (RSPO)	Shrublands	32,53 ha	46 tC/ha	1.496,38 tC	Grasslands	107,10 ha	5 tC/ha	535,48 tC
	Grasslands	107,39 ha	5 tC/ha	536,95 tC				
High Carbon Stock (HCS) Forests	0 ha				0 ha			
Peat-lands	0 ha				0 ha			
HCV 1	0 ha				0 ha			
HCV 2	0 ha				0 ha			
HCV 3	0 ha				0 ha			
HCV 4	0 ha				0 ha			
HCV 5	0 ha				0 ha			
HCV 6	0 ha				0 ha			
Local community lands	0 ha				0 ha			
HCV Management	0 ha				0 ha			
Conservation Areas NO HCS	0 ha				0,90 ha			
Potential planting areas	139,91 ha				106,19 ha			

Section 10: Confirmation of Report



República de Guatemala  
Noviembre de 2021

**RSPO**  
**A quien le interese**

El objetivo de este documento es expresar que la empresa Agrocaribe S.A. manifiesta su acuerdo con los resultados de todos los estudios que se han realizado para cumplir con los requisitos del Procedimiento de Nuevas Plantaciones de RSPO AGROCARIBE S.A. realizado por la empresa BioAp elaborado en la fecha de septiembre 2021, (EIS, EIA, AVC-HCSA, LUCA, GEI y suelos frágiles) y que la administración general está completamente comprometida con monitorear y ejecutar el plan de acción propuesto, proporcionando recursos financieros y humanos para cumplirlo.




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Por lo tanto, la empresa cuenta con un grupo de profesionales especializados en cada tema:

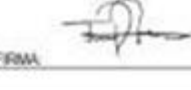
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Date of Completion	02/12/2021
Signature	
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Position	Lead Auditor RSPO – Control Union Colombia