

**RSPO**

**NEW PLANTING PROCEDURES (NPP).**

**COMPANY:**

**CORPORACIÓN AGROINDUSTRIAL DEL CARIBE S.A.**

**Environmental Impact and High Values of  
Conservation Assessment System Summary**

**PREPARED BY:**



**BIO TERRA CONSULTORES AMBIENTALES**

**GUATEMALA, FEBRUARY 2014**

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## **Executive Summary**

This document presents a comprehensive, participatory and independent assessment of the state of natural resources and the physical and social environment of the new area that will be used and its region of influence, so as to minimize the project's negative social and environmental impacts.

It is important to highlight the following information:

### **Primary forests:**

The study area is a mosaic of habitats and plant associations produced by intensive anthropogenic activities and developments. The agricultural and livestock activities carried out in the area for decades are the main activities that have degenerated the natural ecosystems of this area. Mainly due to this reason, a large percentage of forest coverage that occupied this region in the past has been subjected to exploitation throughout history and today has practically disappeared.

**According to the above, the existence of ecosystems classified as primary forest or of regional climatic significance in the farms or in their direct influence area DIA, has been discarded. The study does not consider that the Project will directly influence natural ecosystems in a good state of conservation.**

### **Surface necessary to keep or improve one or more High Conservation Values (HCV):**

At this point it is important to clarify that, none of the farms under study nor their areas of direct influence, were there any High Conservation Value Areas HCVA identified. None of the variables analyzed reflect the true existence of HCV 1, 2, 3, 4, 5 y 6.

The three farms under study are in extremely degraded natural ecosystem areas, mainly due to the agricultural and livestock activities in the area. For decades, agricultural exploitation has been intense and there has been no mitigation for the conservation of habitats, which has undermined a large percentage of the natural ecosystems that once occupied the area.

In addition, it is important to emphasize that the Company did not undertake any forest conversion, prior to planting palm in the 3 farms being studied.

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In the Direct Influence Area flows the Motagua River, a very important river at the regional level, and with impending flood risk of its banks. The banks of this river must be taken care of and hopefully reforested, although because of river overflows, the river lays waste to everything in its banks. It must be pointed out that any patch of forest and vegetation associated with water bodies, plays an important ecological role, even if it has not been catalogued as HCVA according to the guidelines set forth in the methodology used, because it is not critical or regionally representative.

### **Areas of peat soils**

One of the main characteristics of peat lands is the presence of high contents of organic matter O.M. (>6.8 %). In the study area, there were no soils with high content of organic matter; therefore there is no presence of peat lands in any of the three farms analyzed.

### **Local population (indigenous) lands**

From the analysis made, there is no presence of indigenous people in the farms under study, their direct influence area or the communities nearby.

### **Current use of the newly planted farms**

The three farms under study are in a highly devastated area in biological terms. This is mainly due to the history of the region which is linked to the presence of the United Fruit Company (UFCO) in Guatemala. In the early twentieth century the company built the railway from Guatemala City to Puerto Barrios, and large tracts of land parallel to the railroad in the department of Izabal (among others) were acquired by the company for two purposes: one for extensive banana cultivation, and others were put up but kept idle, apparently to prevent competitors from entering the banana market and at the same time to keep United Fruit company prices convenient.

Also, with the throughout the years the area has also been devoted to other extensive crops such as plantains, oil palm and rubber, among others, as well as extensive livestock (cattle) activities. Under these predominant activities in the area, an agricultural mosaic landscape has emerged, which has not given any space to the natural regeneration of the landscape and to have new potential areas of conservation.

Due to this very land intensive intervention, in the farms in the study and their direct influence area, there is virtually no forest cover, or environmentally fragile areas.

## Scope of application of the SEIA and the evaluation of the HCVA

### Information of the organization and contact people

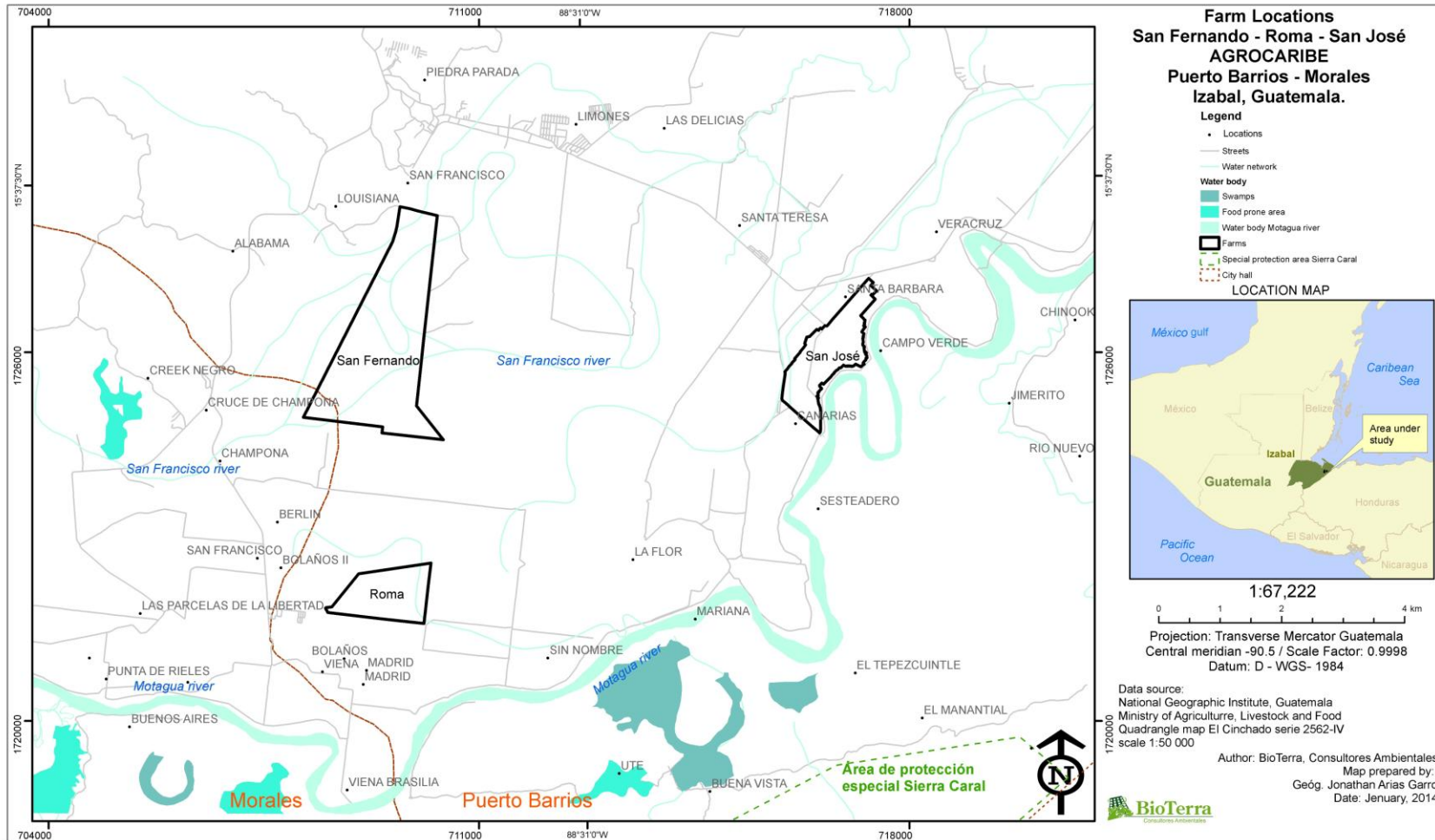
<b>Name of the company</b>	Corporación Agroindustrial del Caribe S.A.
<b>Tax Identification Number (NIT)</b>	1251686-4
<b>Legal Representative</b>	Jose Roberto Montenegro Baide
<b>Identity document</b>	C999706
<b>Telephone</b>	5696-8773
<b>Fax</b>	2207-3000
<b>Email</b>	<a href="mailto:jmontenegro@agroamerica.com">jmontenegro@agroamerica.com</a>
<b>Company's Environmental Manager</b>	Pedro Roberto Cerrate Morales
<b>Identity document</b>	1820 06298 0920
<b>Telephone</b>	5951-8644
<b>Fax</b>	2207-3000
<b>Email</b>	<a href="mailto:pcerrate@agrocaribe.com">pcerrate@agrocaribe.com</a>

### List of the legal documents, regulatory permits and property titles related to the evaluated areas

Currently, these plantations under study have been granted Environmental Viability by the Environmental and Natural Resources Management General Office of the Ministry of the Environment and Natural Resources. This Viability was granted by Resolution 147-2014/DIGARN/LTCT/Arg on January 10, 2014. The assigned file is No. : D-153-12.

Also, simultaneously, the certification for these new plantations of African oil palm is in process at the African Round Table on Sustainable Palm Oil RSPO, which is why this report is being issued.

## 1.1 Location map - both at the landscape and property level



### Area and chronogram for the new plantings

Below is a table with the detail of the new plantations:

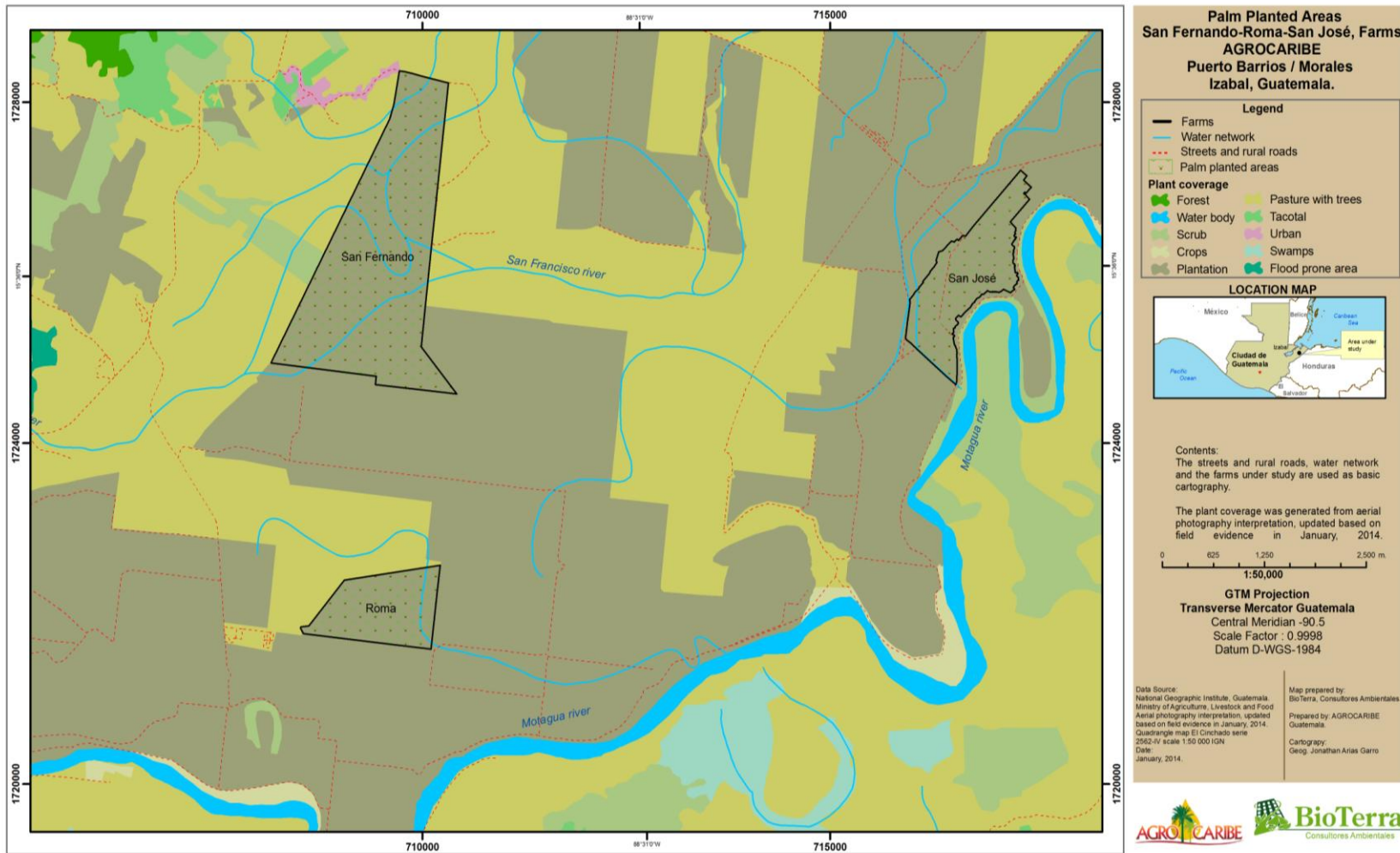
Farm areas versus planted areas

Farm	Farm area	Area to be planted
Roma	118.41	111.13
San Fernando	427.33	417.46
San Jose	145.58	138.24
<b>Total</b>	<b>691.32</b>	<b>666.83</b>

Before being used for the cultivation of oil palm, the farms under study, San Fernando and Roma were being used for cattle, , and San Jose for the cultivation of plantain.

Below is a map which clearly indicates the newly planted areas:

Map of areas of the new plantations, vs land use coverage in the area of influence





The following table shows the production schedule proposed:

Productivity per farm (ton/ha / year of production)

Year of production	Roma	San Fernando	San Jose
2011			
2012			
2013	6,5		
2014	18,6	4,8	4,4
2015	26,0	15,0	14,0
2016	30,0	21,0	19,0
2017	31,0	28,0	26,0
2018	32,0	31,0	30,0
2019	32,0	33,0	31,0
2020	32,0	33,0	32,0
2021	31,0	34,0	32,0
2022	31,0	32,0	32,0
2023	31,0	32,0	31,0
2024	30,0	32,0	31,0
2025	30,0	31,0	31,0
2026	30,0	31,0	31,0
2027	30,0	30,0	30,0
2028	29,0	30,0	30,0
2029	28,0	30,0	30,0
2030	28,0	30,0	30,0
2031	26,0	30,0	30,0
2032	26,0	29,0	29,0
2033	24,0	29,0	29,0
2034	24,0	27,0	27,0
2035	22,0	27,0	27,0
2036	22,0	25,0	25,0
2037	20,0	25,0	25,0
2038		23,0	23,0

## Process and Procedure Evaluation

### Information of consultants and their credentials

The responsibility for preparing the studies that support these public notice reports, is the environmental consulting company Soluciones Ambientales Bio Terra S.A. with consultant registration number from the National Environmental Technical Secretariat of Costa Rica (Setena) EC-004-2008 (before) and EC-010-2012 (now), valid until June 8, 2014.

This company is also accredited by the RSPO as consulting company to prepare these studies.

The professional team which is broken down below, meets and transcends everything requested by the RSPO.

Professionals	Expertise	Identity document
<b>MSc. Marisol Zumbado Bustillos</b>	Biologist expert in Environmental Management and Auditing. Consultant approved by the RSPO, she was responsible for the coordination and integration of the present study. <b>Team Leader</b>	Identity document: 1 -1143 -0899
<b>MSc. Darien Zúñiga Jeanette Loría Leitón</b>	Biologist with emphasis on ecology and sustainable development, with an Environmental Management degree. Responsible for the assessment of the High Conservation Value Areas.	Identity document: 1 -1135 -0269
<b>Licenciado Jonathan Arias Garro</b>	Geographer specialist in territorial management, responsible for the development of the conservation values and plant coverage zoning maps, etc.	Identity document: 3 -0380 -0274
<b>Dr. Rosa Bustillos Lemaire</b>	Lawyer specializing in environmental law, responsible for analyzing and collecting the legal rules applicable to the project in question.	Identity document: 1 -0513 -0152

Additional information available for Agrocaribe was generated by professionals in Guatemala, such as:

<p><b><i>Environmental Diagnosis</i></b></p> <p>Empresa Ambiente y Desarrollo Consultores S.A.</p>
<p><b><i>Rapid Ecological Assessment (REA)</i></b></p> <p>Empresa Ambiente y Desarrollo Consultores S.A.</p>
<p><b><i>Social Impact Study</i></b></p> <p>GuateAmala-Fundación Proyecto de Vida</p>
<p><b><i>Soil study</i></b></p> <p>Carlos Alberto Chavez Garzon Agricultural engineer</p>
<p><b><i>Land use historical analysis (aerial photos and satellite images)</i></b></p> <p>Geotecnología de Centro América S.A.</p>

**Assesment Methods (data sources, data collection, dates, programs, places visited)**

**Methodology used for the characterization of the socio-economic impacts**

Recruitment of GuateAmala:

- Agrocaribe organized the social impact study using the mechanics of the workshop given by GuateAmala, a citizen's movement for Life Culture that allows Guatemalans to show with concrete actions, the principles of positive behavior and coexistence, creating networks by assuming responsibility for their own future to build a better Guatemala. The project "Dialogs in action" was the one who made the motion to make the social impact study. The main objective of the study is to be able to get closer to the communities, gather information on community leaders' perception of the company and motivate them to take action in favor of Guatemala.

Activities:

- The workshop was held for two days and it was attended by 30 participants from 16 neighbor communities around the operations
- There were several activities: introduction of the participants, presentations and views on the positive and negative aspects of the country, community values, questionnaire on Agrocaribe and Extractora del Atlántico, presentation of motivational videos and several group dynamics

Collected information:

- Profile of community members: age, religion, occupation
- Community Values
- Community needs in terms of infrastructure, health, education and environment
- Community Projects
- Perception on Agrocaribe and Extractora del Atlántico
- Utilities the community already has.
- Negative Impacts
- Previous use of the land before planting oil palm

Number of persons summoned, date, time, place where the social impact study was conducted:

- It was attended by 30 people from 16 communities for two days (March 19 and 20, 2013) held at Finca La Argentina located at km 287.5.

**Methodology used to draw up the soil types in the study area**

Several factors were taken into account to make this study: the climatic conditions of the area, water management, ground cover management, and nutrient reserve.

#### Climatic conditions:

For the analysis of climatic conditions there are several rain gauges and weather stations, which are installed close to the farms being studied.

The collected data is: precipitation, temperatures, relative humidity, dew point, soil moisture at different depths, wind speed and direction, radiation and PAR light.

In the case of manual rain gauges and thermometers, the readings are made every day; in the case of weather stations, the readings are taken and stored every hour in the memory of the station, to be downloaded and analyzed afterwards.

#### Water Management:

For the water management, there are altimetry and topography studies, which enable us to know where the water is heading. This study is used to develop a design, which will facilitate the establishment of the crop. This design is oriented to have a drainage network that helps drain the surface water, channeling it to its natural primary drain.

The design also allows to define the infrastructure for roads, aimed at optimizing the area to be planted, since according to the topography of the terrain the roads are traced, minimizing the construction of adaptation (bridges, culverts, etc.), when designing the areas to be planted according to the conditions of the field.

#### Nutrient reserve management in the soil:

To determine soil nutrient levels of different plots, soil samples are taken at different depths. The tools that are used are: ruler, machete, plastic bags, rubber and trays.

The procedure used for taking soil samples in the field is the following:

- Soil sampling in the field:
  - a. To take the specimen a hole is made at three established depths, which are: 0 - 20 cm, 20 - 40 cm and 40 - 60 cm.
  - b. A sample of soil is taken and packed in a plastic bag and labeled to know where it comes from for each depth.
  - c. Several subsamples are taken from the same plot at the 3 different depths, then they are mixed (by depth), to have a single representative sample for each depth.

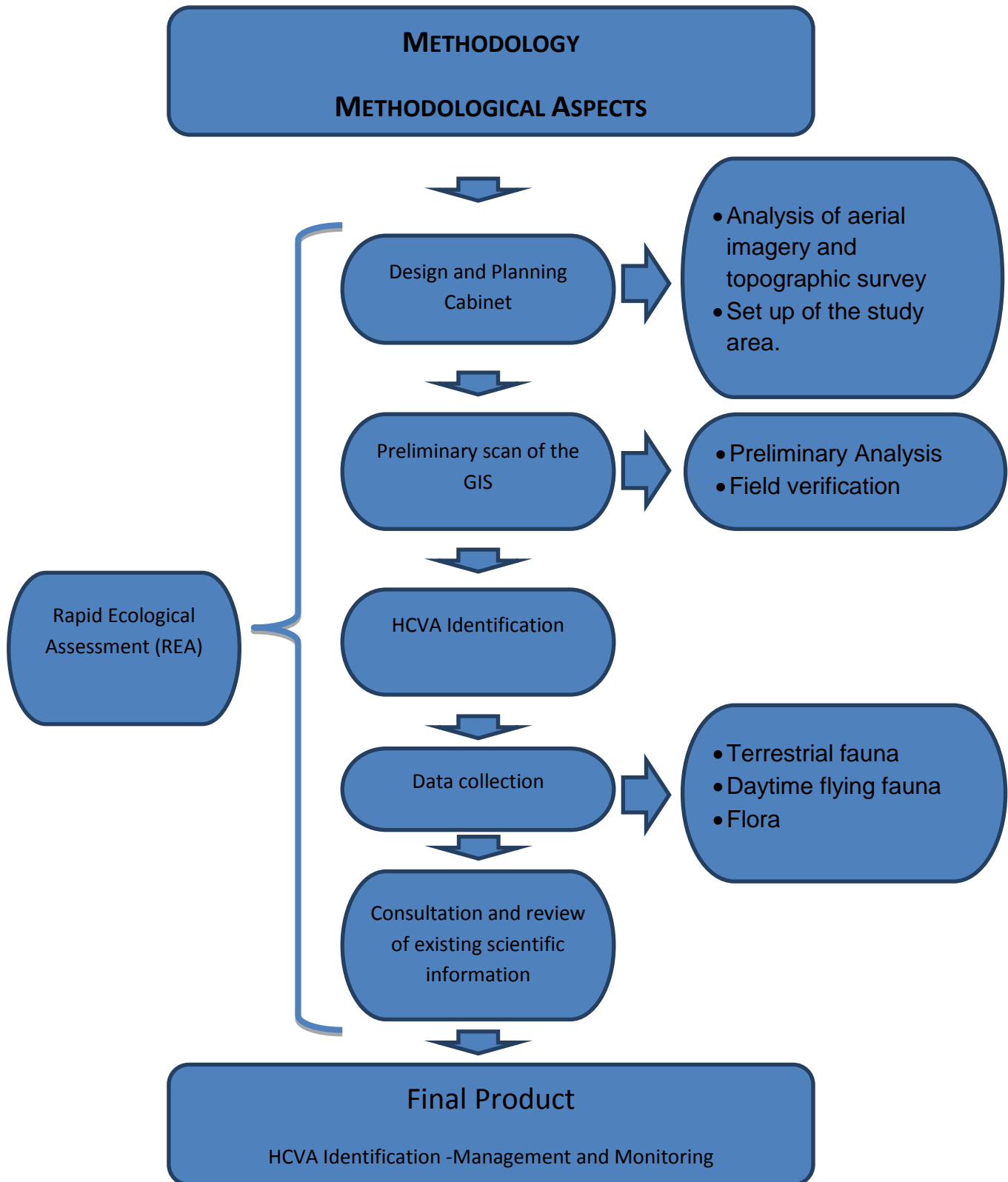
- Drying and packing the soil sample in the company's laboratory:
  - a. The samples are taken out of the bags, when they come in from the field.
  - b. The samples are then placed on bags to dry out in the shade (dried only by the wind).
  - c. When the samples are dried, they are packed in bags, and labeled with the date on which the sample was taken, the plot number and depth.
  - d. Each sample is weighed (300 grams), to be sent to the laboratory for analysis.
  - e. In the warehouse the counter-samples (the rest of the sample) are kept, until the laboratory results come back, just in case something happens to the sample sent.

The samples are sent to the laboratory at the University of Costa Rica.

Based on the values obtained and analyzed, plus the characteristics of each soil unit, fertilization is planned, in terms of the formula and the dosage per plot.

### **Methodology used for the High Conservation Value Areas Evaluation.**

Below is a diagram that summarizes this methodology:



In regard to the HCVA identification, we used the following methodology:

HIGH CONSERVATION VALUES	METHODOLOGICAL PROCESS
<p><b>HCV1: Diversity of species</b></p>	<p>-GIS Information</p> <ul style="list-style-type: none"> <li>❖ Analysis of satellite and aerial imagery.</li> <li>❖ National protected areas NPA land use maps, etc.</li> </ul> <p>-Secondary Information</p> <ul style="list-style-type: none"> <li>❖ NPA Management plans review</li> <li>❖ NGO's list.</li> </ul> <p>-Review of listed species on national and international agreements</p>
<p><b>-HCV2: Ecosystems and mosaics at the landscape level.</b></p>	<ul style="list-style-type: none"> <li>❖ CITES.</li> <li>❖ IUCN.</li> <li>❖ Official Mexican Norm on the environmental protection of native species NOM-ECOL-059.</li> <li>❖ Others.</li> </ul> <p>Rapid Ecological Assessment (REA)</p> <p>- Compilation of field information / field sampling</p> <ul style="list-style-type: none"> <li>❖ Daytime terrestrial fauna</li> <li>❖ Daytime flying fauna</li> <li>❖ Flora</li> </ul>
<p><b>-HCV3: Ecosystems and rare , threatened or endangered habitats</b></p>	<p>-Inquiry to focus groups and groups of interest by a sociologist</p> <ul style="list-style-type: none"> <li>❖ Independent owners.</li> <li>❖ Community population.</li> <li>❖ Community leaders.</li> <li>❖ Company workers.</li> </ul>
<p><b>-HCV4: Ecosystem Services</b></p> <ul style="list-style-type: none"> <li>❖ HCV4.1 Critical forests for receiving basins</li> <li>❖ HCV4.2 Critical forests for erosion control</li> <li>❖ HCV4.3 Forests firewalls</li> </ul>	<p>-GIS Information</p> <ul style="list-style-type: none"> <li>❖ Soil and vegetation maps.</li> <li>❖ Hydrological and soil maps.</li> <li>❖ Maps of cultural areas and indigenous reserves.</li> </ul> <p>-Analysis of satellite and aerial imagery.</p> <p>-Analysis of government databases (INEGI).</p>
<p><b>-HCV5: Community needs</b></p>	<p>-Socio-economic surveys of the relevant actors.</p> <p>-Government database analysis (National Museum-database of archaeological sites).</p>
<p><b>-HCV6: Cultural Values</b></p>	<p>-UNESCO</p>



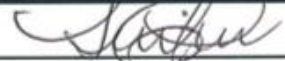
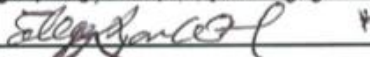

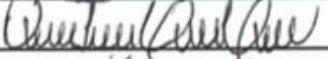
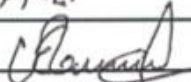
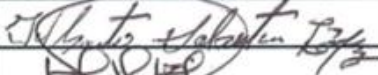


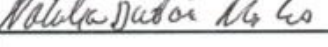
**Consultation of stakeholders (representatives contacted, records and dates of the enquiry)**

Given the rural social characteristics of the study area, invitations were handed out in 16 communities to hold a workshop for Free, Previous and Informed Consent (FPIC) with communities and other stakeholders, as requested by the RSPO Standard.

The workshop was held on March 19 and 20, 2013, and was conducted in Finca La Argentina located at km 287.5.

The following is a sample of the constancy of the process:

Impacto Social 19 de marzo de 2012

No.	Nombre	Comunidad / institución	Firma
1	Lorenzo Chaj	Suiche 3	
2	Juan Rosales	Suiche 3	Juan Rosales.
3	Heidi Gonzalez	San Francisco vuelta grande	Heidi GP
4	Abraam Robles	" " "	Abraham Robles
5	Robelia Sandoval	Champona Linea	
6	Hector Augusto miguel	Entre Rios	
7	Iris Cruz	Entre Rios	
8	Neftali Menendez	Media Luna	NEFTALI
9	Edvin Cordón	Media Luna	
10	Ines Ramos	Jimeritas	Ines Ramos
11	Gilberto salvaherra	Jimeritas	
12	Marco Yinicio Francón M.	Aldea Cayuga.	
13	Lina Leticia Sandoval	Aldea Cinchado	
14	Datalia Dubón	El Cinchado	

**List of reference documents (laws, studies, etc.)**

***High Conservation Value Areas Assessment. New Planting Procedure***

Marisol Zumbado Bustillos

**Team leader accredited by the RSPO**

Biologist with emphasis on ecology and sustainable development

Master in Auditing and Environmental Management with a specialization in Management and Conservation of Natural Resources

College of biologists: 1416

SETENA Consultant: CI-091-2007 (before) / CI-144-2012 (current)

Darién Zúñiga Leitón

Biologist with emphasis on ecology and sustainable development

Master in Auditing and Environmental Management with a specialty in integrated water management and remediation of contaminated soil.

College of biologists: 1519

SETENA Consultant: CI-091-2007 (before) / CI-144-2012 (current)

***Environmental Diagnosis***

Company: Ambiente y Desarrollo Consultores S.A.

***Rapid Ecological Assessment (REA)***

Company: Ambiente y Desarrollo Consultores S.A.

***Social Impact Study***

GuateAmala-Fundación Proyecto de Vida

***Soil study***

Carlos Alberto Chavez Garzon

Agricultural engineer

***Land use historical analysis (aerial photos and satellite images)***

Geotecnología de Centro América S.A.

With regard to the related legislation the following summary is provided:

NATIONAL OR INTERNATIONAL STANDARDS
CENTRAL AMERICAN CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY
PARIS CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY
INDUSTRIAL PROPERTY LAW REGULATION OF THE INDUSTRIAL PROPERTY LAW
POLITICAL CONSTITUTION OF THE REPUBLIC
LAW OF PROTECTION AND IMPROVEMENT OF THE ENVIRONMENT
EVALUATION, CONTROL AND ENVIRONMENTAL MONITORING REGULATION
REGULATION OF WATER DISCHARGE, WASTEWATER USE AND SLUDGE DISPOSAL
GOVERNMENT AGREEMENT NUMBER 252-89 PROHIBITS THE IMPORT OF CHLOROFLUOROCARBONS (CFCS)
CONGRESS DECREE 34-89 ACCEPTS THE MONTREAL PROTOCOL RELATED TO SUBSTANCES THAT DEplete THE OZONE LAYER SIGNED IN MONTREAL ON 16-09-87.
MINISTERIAL AGREEMENT 413-2006 REQUIREMENTS FOR THE IMPORT, SALE, USE AND EXPORT OF OZONE-DEPLETING SUBSTANCES AND IMPORT OF EQUIPMENT AND ITEMS THAT CONTAIN CHLOROFLUOROCARBONS.
PROHIBITION OF DUMPING WASTE INTO WATER . DECREE 1004
HEALTH CODE
MUNICIPAL CODE
LAW FOR THE PROTECTION OF THE CULTURAL HERITAGE OF THE NATION
REGULATING LAW FOR THE IMPORT, PROCESSING, STORAGE, TRANSPORTATION, SALE AND USE OF PESTICIDES
OIL MARKETING LAW OIL MARKETING LAW REGULATION
LAW OF THE NATIONAL COORDINATOR FOR DISASTER REDUCTION REGULATION AGREEMENT FOR THE LAW OF THE NATIONAL COORDINATOR FOR DISASTER REDUCTION
GOVERNMENT AGREEMENT 134-2005 SPECIFIC LIST OF PROJECTS, WORKS, INDUSTRIES OR ACTIVITIES.
CIVIL CODE

CRIMINAL PROCEDURE CODE

PLANT AND ANIMAL HEALTH LAW

PLANT AND ANIMAL HEALTH LAW REGULATION

REGULATION FOR THE REGISTRATION, MARKETING, USE AND CONTROL OF AGRICULTURAL PESTICIDES AND RELATED SUBSTANCES.

STOCKHOLM CONVENTION

ROTTERDAM CONVENTION

GENERAL REGULATION ON HYGIENE AND SAFETY AT WORK

ENVIRONMENTAL EVALUATION, CONTROL AND MONITORING REGULATION

BIOLOGICAL DIVERSITY CONVENTION

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA CITES.

LIST OF ENDANGERED SPECIES IN GUATEMALA

LAW AGAINST FEMICIDE AND OTHER FORMS OF VIOLENCE AGAINST WOMEN

LABOR CODE

LAW FOR THE DIGNITY AND INTEGRAL PROMOTION OF WOMEN

REGULATION FOR BREASTFEEDING LEAVE

PROTECTED AREAS LAW

REGULATION FOR THE PROTECTED AREAS LAW

FORESTRY LAW

REGULATION OF THE FORESTRY LAW

REGULATION FOR THE APPLICATION OF THE CONVENTION OF THE INTERNATIONAL LABOR ORGANIZATION, ON THE WORST FORMS OF CHILD LABOR AND THE IMMEDIATE ACTION FOR THEIR ELIMINATION

ILO CONVENTION 182

ILO CONVENTION 111 CONCERNING DISCRIMINATION IN EMPLOYMENT AND OCCUPATION

## Summary of the results of the socio-economic impact evaluation

### Summary of the main conclusions in relation to the socio-economic impacts of the country, regions and local communities

From tours to the communities and meetings with community leaders from farm areas of the new oil palm plantations in Morales and Puerto Barrios, the main social impacts identified as a product from this activity can be grouped into the categories listed in the following table:

Positive impacts	Negative Impacts
Employment Generation	Non-local work in the field
Higher payment than the minimum wage	Floods
Responsibility to the communities	Bad smells from the raquis reach the communities
Responsible with the environment	Abuse of the buffalo
Leader company	Deterioration of roads
Environmental and social certifications: Rainforest Alliance, BASC, UK Kosher, Unilever, Certified Emissions Reductions, RSPO process	Lack of support from the communities

As shown in the table above, the potential social impacts that will be generated in the study area as a result of the new oil palm plantations were classified into two major groups: possible positive social impacts and possible negative social impacts. The types of social impacts that could occur were grouped in these two broad categories, from the information gathered in the work tour and conversations with the area residents.

**Summary of the main conclusions in relation to the socio-economic impact of the emerging communities (employees, suppliers, etc. )**

<b>Economic stability</b>	<b>Employment Generation</b>
<b>Source of work</b>	<p>The development of new palm plantations will create new sources of employment:</p> <ul style="list-style-type: none"> <li>- direct for those who are hired to work at different stages of the crop of new plantations (nurseries, site preparation, palm planting, maintenance and harvesting of the product). Also administrative staff, staff for workshops, operators, pilots and extraction plant personnel</li> <li>- Indirect employment for all those suppliers that due to the new oil palm plantations have new job opportunities</li> </ul>

**Concerns and/or comments raised by the community leaders, and the comments of the consultant**

The following is a summary of the testimony of the community leaders:

- **Odilio Rosales, Rio Negro:** *"To thank the palm, because of them, Rio Negro has developed. Projects have been generated and they have given us machinery to fix some of the streets. We have seen the development."*
- **Edvin Cordón, Media Luna:** *"The dirt road in my community was pretty bad, and 3 years ago there wasn't much communication between our communities and Agrocaribe, before we wouldn't even have thought about asking you for your support. We have been able to see a big change with the new administration; I believe this has to do with people's attitude. Agrocaribe has already repaired the road 4 times, we have found in Agrocaribe a friendly hand and with these meetings we feel grateful that they have opened their doors to dialog. In the past there was no possibility to have access to the farms to ask for support, and when we came close 3 or 4 years ago they didn't offer any possibility of dialog, as what they are giving us today."*

*Before the banana company used to help 5 times more than the palm company, but now things have changed completely, now the palm company give us their support. I invite all those present to let our friendship with the palm companies endure, we must come closer to request their support, but neither should we ask for too much"*

- **Yandi Sarmiento, El Quetzalito:** *"I am very happy to be here, because I can see that the relationship with the palm companies has been moving forward. I am grateful to Agrocaribe because they have employed people in my community, we make our living from fishing but because of climate change it is no longer a source of income, but now with the palm, our people have opportunity new job opportunities"*
- **Jaime Lopez, Las Vegas:** *"We are here to clear the past, and to thank Agrocaribe for the opportunity you have given us. In the past there have been bad thoughts about the relationship between the company and the communities, but this is changing and we are seeing support. We recognize that the palm work is quite difficult, the tools are heavy like the bunches, it is a strong and heavy work for our people, but I would like young people to be given the opportunity to work on the farms".*
- **Lorenzo Choj, Suiche 3:** *"Thank the company, since things are moving differently, and before these spaces did not exist. We now realize that they see our needs from another point of view. It is also necessary that the people, who request support from Agrocaribe, are based on the current needs of the communities and that everything that they ask for is for everyone's benefit, and not only for their personal benefit. We have seen millionaire investments on the banks and they even gave us support with a bridge that we had been asking for help from the government years ago, until the palm company helped us with our request. If some have not had any communication with the palm company, let them come close, because we are in need and they are ready to listen".*
- **Domingo Guerra, Quebrada Grande:** *"I agree with those who are dissatisfied by the area for not accepting the Q-18 in the field work, but I also have to admit that we are the ones who have lost our opportunities, because the attitude of our people is always wanting to impose laws and sometimes the work is not carried out correctly and this stains the name of our communities".*

From these testimonies, it is possible to perceive a good relationship between the communities and the company, and also see the acknowledgement of these people to the company.

**It must be pointed out that there are no objections to new plantings.**



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## Summary of the results of the HCVA evaluation

The three farms under study, are in a highly devastated area in biological terms.

Mainly due to the fact that the history of the region is linked to the presence of the United Fruit Company (UFCO) in Guatemala, since at the beginning of the twentieth century, the company built the railway from Guatemala City to Puerto Barrios, and parallel to this the company acquired large tracts of land in the department of Izabal (among others) for two purposes, one for extensive cultivation of bananas, and the other even though lands were conditioned for farming they were kept idle, apparently to avoid competitors from entering the banana market and at the same time to keep prices convenient for UFCO.

Also, over the years the area has also been devoted to other extensive field crops such as plantain, oil palm and rubber, among others, as well as extensive cattle ranching activities. Under these predominant activities in the region, an agricultural mosaic landscape has developed, which has not given space for the existence of the natural regeneration of the landscape and to have new areas with a potential for conservation.

According to the survey conducted by the company Geotecnológica, which used 2006 aerial images and 2010 multispectral satellite images, it became clear that in the farms under study there was no presence of forest. This is also evident from the dynamics and forest coverage maps (2006 to 2010) published by the National Forest Institute -INAB [for its initials in Spanish]. This information shows that the company did not make any forest conversion, prior to palm planting (attached is the analysis of aerial and satellite images, and INAB's dynamics and forest coverage map).

It is because of this very intensive soil intervention, that in the farms under study and in their areas of direct influence, there is no forest coverage, nor environmentally fragile areas.

For decades, the agricultural exploitation has been so intense, and without any type of mitigation at the level of habitat conservation, that which a large percentage of the natural ecosystems that once occupied the area was undermined, this includes riparian vegetation.

**For this reason, even though the farms are associated and/or crossed by waterways, these bodies of water have already suffered the impact and been taken over, in such a way that they lack almost all riparian vegetation, so that there is no representation of flora and fauna diversity, on the contrary, flora and fauna are very scarce and typical of environments under severe**

**anthropogenic pressure. Nor are do they representative ecosystems at the landscape level, nor do they provide ecosystem services, or much less do they meet basic community needs, and of course do not contain any cultural values.**

These bodies of water contain no HCV, since they do not have the ecological attributes and/or social order considered necessary for HCVA.

Notwithstanding the foregoing, as was reflected in the comprehensive HCVA study, any body of water whether or not considered an HCVA, must be respected, and the company should promote its regeneration, as was indicated in the *"Management Plan of the impacts that could affect the areas that still have some potential for the conservation, even though they are not considered HCVA"*.

In the following table are the details of the HCV's identified by farm:

<u>HIGH CONSERVATION VALUES HCV'S</u>	<u>FINCA SAN FERNANDO</u>	<u>FINCA SAN JOSE</u>	<u>FINCA ROMA</u>	<u>DIA</u>
HCV1: DIVERSITY OF SPECIES	A	A	A	A
HCV2: ECOSYSTEMS AND MOSAICS AT THE LANDSCAPE LEVEL.	A	A	A	A
HCV3: ECOSYSTEMS AND RARE HABITATS, THREATENED OR ENDANGERED	A	A	A	A
HCV4: ECOSYSTEM SERVICES	A	A	A	A
HCV5: COMMUNITY NEEDS	A	A	A	A
HCV6: CULTURAL VALUES	A	A	A	A
<b><i>TO: Absent</i></b>				

## **HCV 1. DIVERSITY OF SPECIES**

*HCV 1. Concentrations of biological diversity, which contain endemic or rare, threatened or endangered species, and that are of significant importance at the regional, national, or world level.*

The results obtained through the methodologies employed (*rapid ecological assessment - biological field sampling - analysis of aerial imagery, etc.*) for each farm, showed that the species of wild animals that are regularly seen on the farms and in their DIA, are common species with common habits. The presence of common small reptiles, birds and small mammals is the dominant pattern. It has been determined that there are no habitats or duly preserved ecosystems in good natural state, that could sustain populations and communities representing faunal groups. In addition, there is no connectivity between the farms and best preserved ecosystems that would allow a constant flow of species, and therefore greater biodiversity.

Natural vegetation is sporadic and discontinuous, mainly along the water bodies associated with farms San Fernando and San Jose; however, much of this vegetation is composed of aggressively growing grasses that prevent the proliferation of other species of native herbs and shrubs. Also, the remaining trees in the farms, as well as on the shores of the bodies of water are isolated and have a very low density.

In view of the above, the absence of HCV 1 in the farm was determined.

It is important to note, that in spite of the above, it does not mean that it is not possible to sight species considered rare, endemic, threatened or in danger of extinction in the farms, in fact some species in these categories, whether at the national or international level, were living in the farms but only occasionally and in isolated cases, without any evidence of significant or stable concentrations. . It is important to clarify that the areas which generally have significant concentrations of this type of species in conservation categories, are clearly more important for maintaining biodiversity values than those that contain few or none, simply because these species are more vulnerable to the continuing loss of habitat, hunting, disease, etc.

Some of the species seen, that fall into the conservation categories are the iguana (*Iguana iguana*), el garrobo ( *Ctenosaura similis* ) and the armadillo (*Dasyops novemcinctus* ).

On the other hand, according to interviews with farm workers some of the animals that they usually see on the property are: raccoons, barba amarilla (bothrops atrox) snake, iguanas, hawks, herons, wattled jacana. All of the above are common species that are favored by the land use change, mainly from forest lands to cultivation lands. In the interviews it was also pointed out, that it is not common to see large mammals using the farm environment.

**HCV 2. ECOSYSTEMS AND MOSAICS AT THE LANDSCAPE LEVEL AND HCV 3. ECOSYSTEMS AND THREATENED OR ENDANGERED RARE HABITATS**

*HCV 2. Mosaic of ecosystems and ecosystems of great size at the landscape-scale and important on a global, regional or national scale, which have viable populations of the vast majority of the species present in a natural way under natural patterns of distribution and abundance.*

*HCV 3. Ecosystems and threatened or endangered rare habitats*

By analyzing the data and existing information, the presence of **HCV 2 and 3** on the farm **was also ruled out**. These conservation values were dismissed based on the following variables analyzed:

The results of the field samples and of the satellite analysis, showed that there are no primary or secondary forests, or rare, threatened, or endangered ecosystems in the farms. As has been repeatedly mentioned, the farm area under study, is an area that has been exploited by agricultural activities for decades, and that without a doubt all those ecosystems of great ecological importance have almost been entirely eliminated, leaving only isolated water bodies, and some small AID patches currently in regeneration, but these are really very few.

On the other hand, as has been mentioned, two of the farms (San Fernando and San Jose) are associated with water bodies; however, the natural vegetation associated with them is much altered. There are only a few remaining trees, such as willows, guarumos (cecropia obtusifolia), jobos (spondias mombin), and ceibas, but the predominant vegetation is pasture and some shrubs.

The evidence of the aerial images of the farms reaffirms this. The existing consulted land use maps as well as the plant coverage maps, give a broader perception of the current farm conditions and their DIA.

**HCV 4. ECOSYSTEM SERVICES, HCV 5. Community needs, and HCV 6. Cultural Values**

*HCV 4. Basic Services of the ecosystem in critical situations, such as the protection of water collection areas and control of soil erosion and vulnerable slopes.*

*HCV 5. Sites and vital resources to meet the basic needs of local communities, indigenous groups (for their livelihoods, health, nutrition, water, etc.), identified through dialog with those communities and indigenous people.*

*HCV 6. Significant sites, resources, habitats and landscapes for cultural, historical or archaeological reasons at the global or national scale, or cultural, ecological, economic, or religious importance or sacred meaning critical for the traditional culture of local communities or indigenous people.*

To determine the presence, absence, or potential presence of these HCVs, a series of interviews and consultations were done by the team Empresa Ambiente y Desarrollo, where different social stakeholders stood out (community, COCODES, institution, and foundation representatives, etc.), so that the information they provided was essential to the conclusion reached. The above, was complemented with the rest of the information collected with different methodologies, mainly with the field work done, the analysis of aerial imagery, and the bibliographic review.

From the study conducted, the conclusion is that in the farms under study, there are no areas that provide ecosystem services, fundamental needs for communities or areas with unique cultural values. In other words, there is no presence of HCVs 4, 5 or 6.

**HCV 4.**

Some ecosystems provide basic services at the environmental level such as: water collection areas, soil erosion and landslide control, firewalls and flood control. These ecosystems are mainly wooded areas, and as mentioned, both farms under study, such as their DIA, lack complete forest coverage, that could in a way provide this type of service. In relation to the phenomena of erosion and mudslides, it must be clarified that the farms under study are in a floodplain, where steep slopes are practically non-existent, which minimizes this type of phenomena, beyond the fact whether or not there is a forest to mitigate them.

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Also, it is worth mentioning that in the area there is an important water network, which without any doubt generates flooding in cases of extreme environmental events, affecting crops and even communities. However, this water network is devoid of riparian forest, which could somehow mitigate this type of event, hence the fact that in the area the construction of dams and banks is very common.

Finally, on fires, mentioned above, this is not an area prone to this type of phenomena.

### **HCV 5.**

In Guatemala, and even in some areas of the Department of Izabal it is still very common to find communities that meet their basic needs from ecosystems, such as access to water, materials, food, firewood, natural medicines, navigation for transportation, etc. However, specifically in the area of the farms under study, there is higher socio-economic development, where it is no longer necessary to cook with firewood, but they mainly use propane gas. There is a wide variety of materials to build houses, so that they no longer depend solely on wood. The homes have access to safe drinking water, and no longer require the rivers for bathing, washing their clothes, or to have water access for consumption. They have access to health facilities even though they have to move to other places, so that they no longer require natural medicines from the forest. Rivers are not used for navigation, because they have a road network. In relation to hunting, this is a practice no longer carried out in the area, however, there is subsistence fishing, although it is not considered essential and indispensable as food for the communities.

Besides, in the study area there are no forests that could actually meet this type of basic needs.

### **HCV 6.**

It is reiterated that this area has been fully used for farming and cattle production, and there are no ruins, historic temples, or archaeological sites identified in the farms of study or in their DIA. In addition, it is important to point out that the general population in the municipalities of Puerto Barrios and Morales is eminently Ladino, so that in the area under study there are no indigenous community residents, therefore there are no sacred sites for this type of communities either.

The following table has the Conservation, Management and Mitigation Plan for all those areas that although they have not been considered HCV areas, they have some potential for conservation.

Objective	Environmental Impact	Environmental Measures	Application Time	Person responsible
<p><b>Ensure the non-affectation, and promote the recovery and maintenance of the biological environment of the farms, and of the DIA and AII.</b></p>	<p>Potential effect on the biological environment (regenerating coverage, fauna and flora and water bodies )</p>	<ul style="list-style-type: none"> <li>• Prevent native tree logging, and prohibit poaching in the farms.</li> <li>• Notify relevant state offices, on the presence of species of endangered flora and fauna, in case any are found.</li> <li>• If any burrows, shelters, or nests of any kind, are found to coordinate with specialists for their relocation.</li> <li>• Ensure the non-affectation of regenerating coverage, or in the protection areas of water bodies associated with each of the farms.</li> <li>• Keep strict erosion and sedimentation control practices, mainly with regard to surface runoff water that drains into the water bodies associated with the farms.</li> <li>• Promote plant recovery plans in the protection areas of the water bodies.</li> <li>• Monitor on a regular basis the physical-chemical conditions of the water bodies.</li> <li>• Take annual water samples of the bodies of water, for the group of macro-benthic invertebrates (biological indicators).</li> <li>• Keep signs indicating the prohibition of hunting, littering, or pollution of the rivers in the farms.</li> <li>• Place signs, stating the rare, endemic, threatened or endangered species that must be protected to help raise awareness of their ecological value.</li> <li>• Participate actively in the local and regional programs for the conservation of biodiversity in Protected Areas nearby.</li> </ul>	<p>The application time is aperiodic. However, the alert to compliance with these measures is constant. In the case of water monitoring, the frequency will be every six months.</p>	<p>Company:</p>

		<ul style="list-style-type: none"> <li>• To perform an assessment with the purpose of determining the awareness level of the staff in the farms on the ecological values in the area.</li> <li>• Establish contact with local institutions, NGO's or government entities, in order to publicize the conservation and management policies and actions that they want to implement.</li> <li>• Take a firm stand and inform the communities on the policies and actions that will be taken by the company in the environmental field.</li> <li>• Identify socio-cultural attitudes that can affect important ecological areas, such as the bodies of water close to the farms and draw up solutions.</li> <li>• Identify internal company problems, in regard to the management of the plantations that could affect important ecological areas close to the farms.</li> <li>• Identify local and regional issues that affect these areas.</li> <li>• Know the position of the owners of the neighboring farms, on the future conservation and management plans for their farms.</li> <li>• Monitor the behavior and dynamics of the ecosystem on the landscape in general (increase or decrease of regenerating areas).</li> <li>• Identify in the landscape the sites with potential of connecting to forested areas that may favor the establishment of biological corridors.</li> <li>• Carry out a survey of the protection areas of water bodies, which are invaded by palm plantations and take actions to correct them.</li> <li>• Assess populations of wild, threatened or endangered species that are making use of the plantations, with the object to determine their population status.</li> <li>• Determine the use of the plantations, as transit and travel routes toward areas better established, by the</li> </ul>		
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		<p>wildlife species identified.</p> <ul style="list-style-type: none"> <li>• Develop a plantation management plan, taking into consideration the environmental impact.</li> <li>• Implement landscape management tools (biological corridors, living fences, fragments or patches of native forests, wetland enrichment and isolation) that ensure the diversity and configuration of the natural landscape.</li> <li>• Design and implementation a local system of ecological connectivity that is integrated into the main ecological structure of the region.</li> <li>• The regional palm agro-system should not be continuous, and a separation or isolation of the palm tree farms of at least 5 kilometers must be sought, in order to promote a diverse landscape.</li> <li>• During the planning of each productive activity, a management plan must be designed and implemented for the landscape that favors heterogeneity of the area and the connectivity between the relics of ecosystems and the permanence of the associated biodiversity. The plan should be based on the implementation of landscape management tools (LMT), such as agroforestry systems, replanting of native species, protection of forest fragments and wetlands, implementation of biological corridors, reconnection of riparian forests, and others.</li> </ul>		
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## Documentation showing Free, Prior and Informed Consent (FPIC) of indigenous people affected by the development of the project (part of the requirements of the RSPO)

As indicated in the executive summary of this document, in the study area there are no indigenous populations that could be affected by the development of these new plantations.

However, the process of Free, Prior, and Informed Consent (FPIC) was carried out with the representatives of the local community. This process was detailed in point 3.3 of this document.

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Proforest, 2013. *Generic Guide for the identification of high conservation values*.

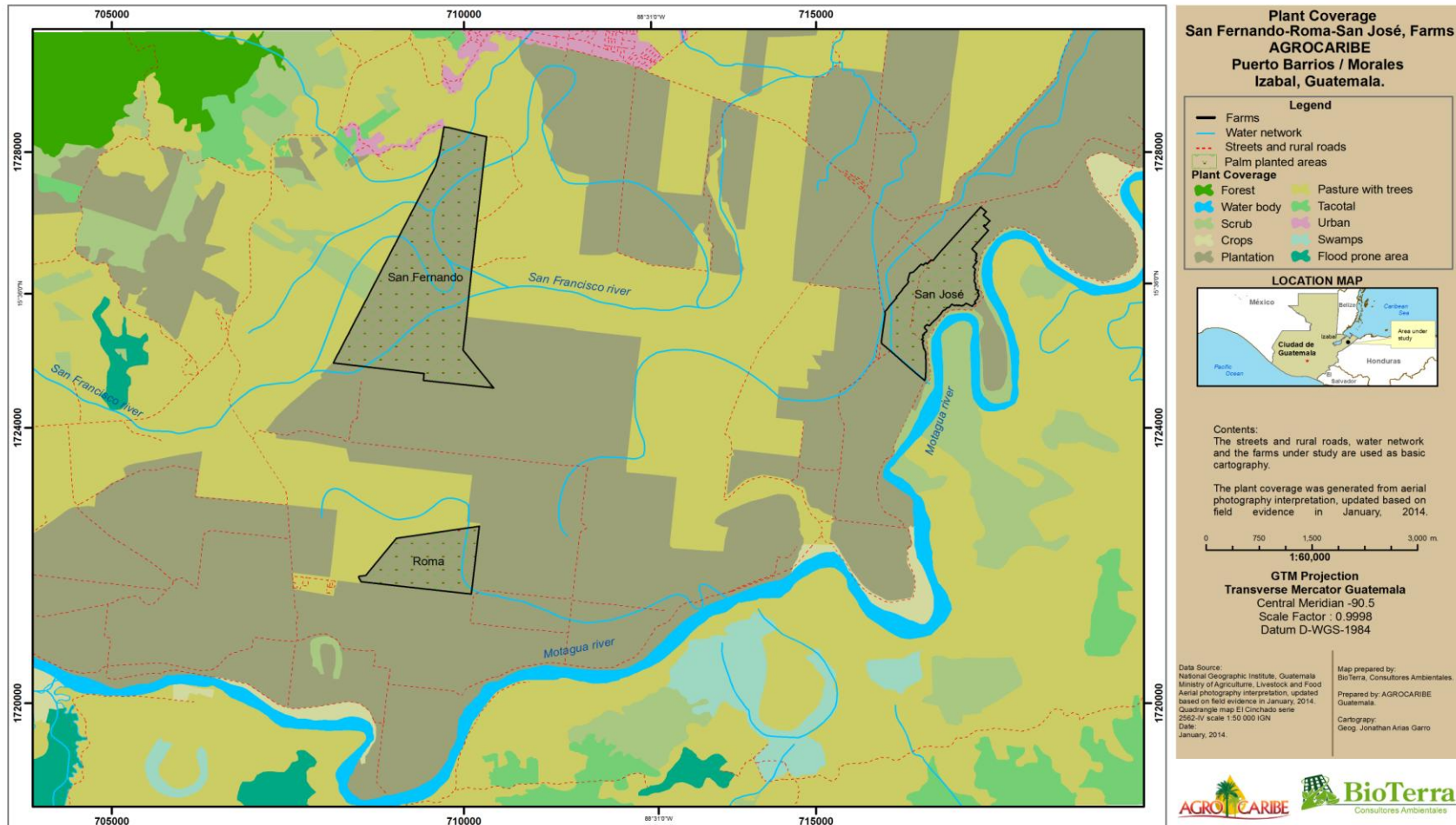
all the sources recommended by the RSPO Standard were consulted, among which the following stand out: "Generic Guide for the identification of high conservation values", "*Manual for Forests with High Conservation Value Toolkit*," and "*Forests with High Conservation Value*" (for more information refer to the web pages: [www.hcvnetwork.org](http://www.hcvnetwork.org) y [www.proforest.net](http://www.proforest.net)).

## **Decisions on the HCV status, and associated maps**

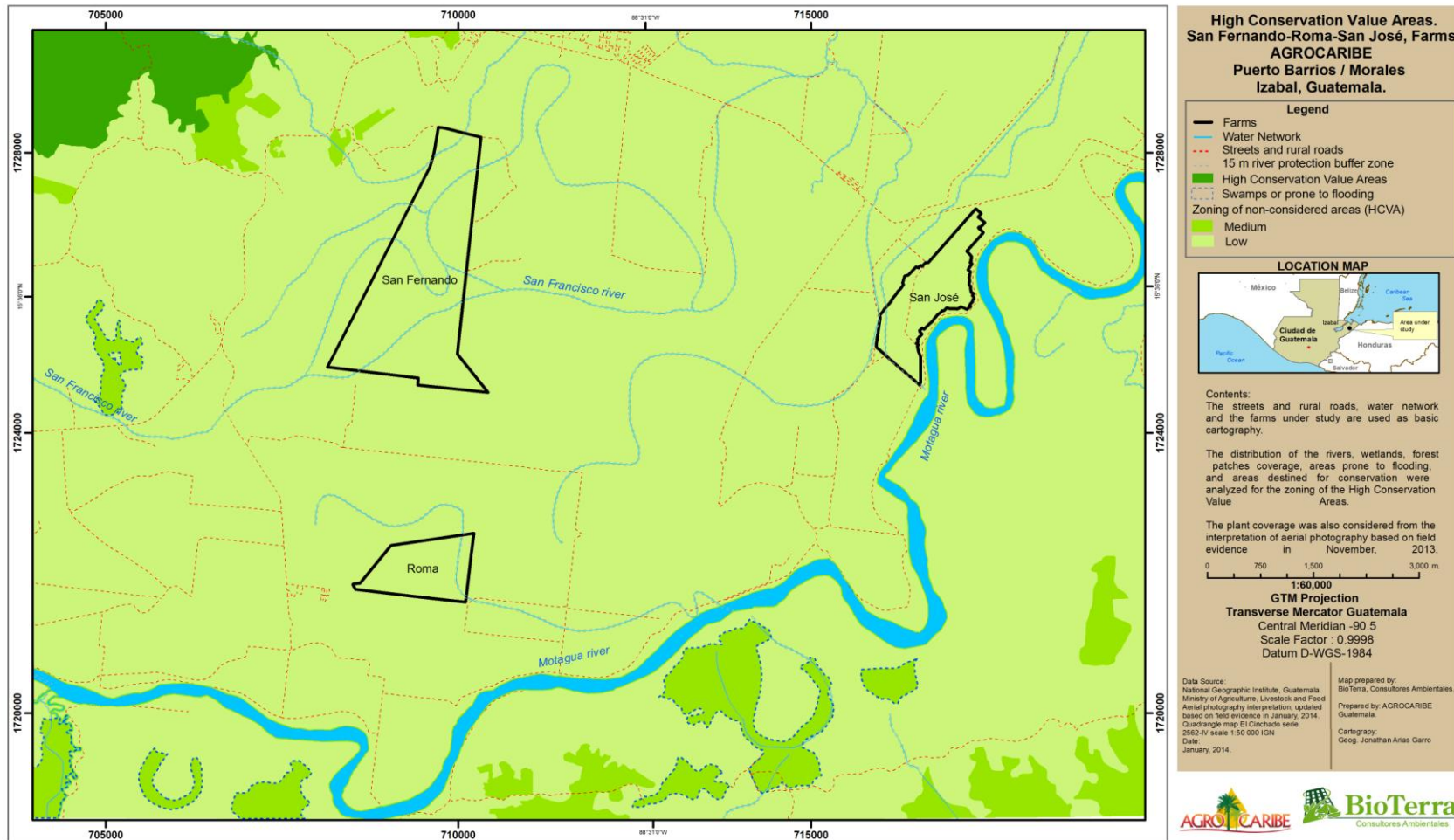
Once more the fact that the farms under study have not been identified as HCV, nor its direct influence area (DIA) must be pointed out. However, there are DIA areas that although they are not considered HCV, they have some ecological potential that deserves preserving.

Below is a map of vegetation cover and HCV map identification.

## Plant coverage map



## High Conservation Value Areas Map



## Internal Responsibility

The company specialized in the environmental field, Bio Terra Consultores Ambientales, who is also accredited by the RSPO, for the preparation of the studies summarized in these public notification reports, assumes full responsibility for the content of these reports.

Without further ado, sincerely,



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*Biologist Marisol Zumbado Bustillos, MSc  
Environmental Consultant-HCV Team Leader  
Bio Terra Consultores Ambientales*

Also, the Company accepts the responsibility of the evaluations undertaken in the farms of study.



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*Agronomist Pedro Roberto Cerrate Morales  
Environmental Manager  
Corporación Agroindustrial del Caribe S.A.*