PROJECT DESCRIPTION UPDATE

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1.1 GENERAL PROJECT DESCRIPTION

1.1.1 Location of the Works

The port is located at the south of Bahia Colombia in the Urabá Golf, on the Caribbean Sea, next to the mouth of the Leon River Mouth and Nueva Colonia Village, in the Municipality of Turbo, Colombia.

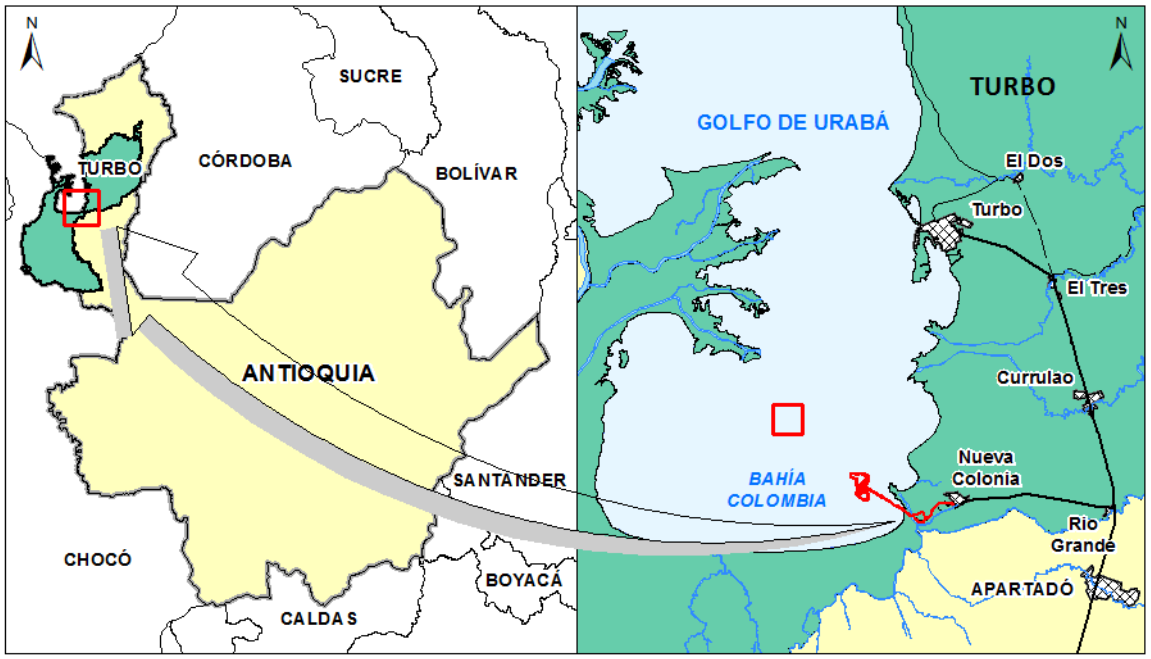

Figure 1-1 General location map

Fuente: Aquaa & Terra Ingenieros Consultores Asociados 2.017

The project is located at 2.600 m from the mouth of to the Leon River mouth, at 7°55´28" North and 76°44´15" West. The project is located on two relevant sides here after referred to as Onshore Platform and Offshore Platform connected by an Offshore Trestle, a Bridge over the Leon River and an Onshore Trestle according.

The PAMPP facilities, during operation phase, will accommodate the below activities:

- Exportation of perishable cargo such as banana, plantain and other fruits in reefers.
- Importation and exportation of full containers
- Importation and exportation of vehicles
- Importation and exportation of general cargo
- Importation of dry bulk goods.

These activities will be executed in the area featured in the Definition Drawings provided in Appendix 1, summarized in the Figure 1-2 below:

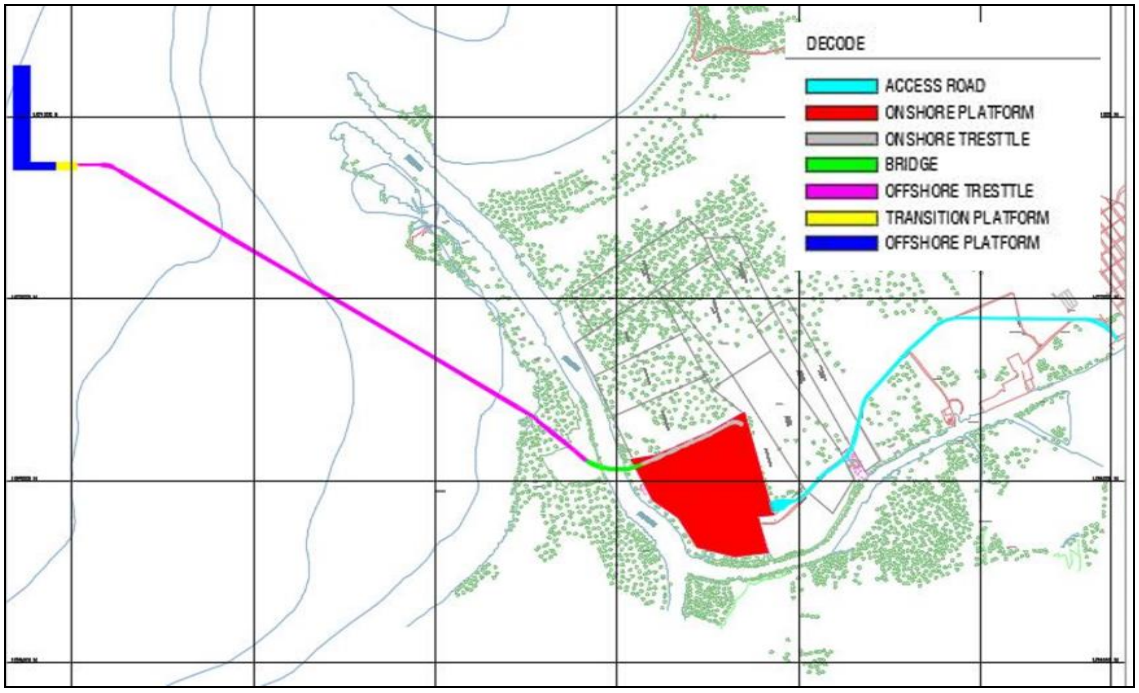

Figure 1-2 Main components and General arrangement

Fuente: Aquaa & Terra Ingenieros Consultores Asociados 2.017

1.1.2 Project Phasing

The project will be built in several phases to cope with the gradual increases in cargo that is expected.

- Stage 1.1: the Offshore Platform, the Offshore Trestle, the Bridge, the Onshore Trestle, the Onshore Platform and the Access Road and the Silo Area as described in this document;
- Stage 1.2: the installation of facilities and equipment by the Employer, namely but not limited to:
    - Installation of 3 shore to shore cranes - STS along berth Q1,
    - Installation of 2 mobile harbor crane - MHC along berth Q2,
    - Installation of 13 rubber tyre gantry – RTGs on the Onshore Platform,
    - Installations of the telecom, security and IT systems,
- Stage 1.3: the erection of stockpiling facilities and equipment in the Silo Area.

1.1.3 Offshore works

The Offshore Works are composed of:

- The Offshore Platform;
- The Transition Platform;
- The Offshore Trestle;
- The navigation aids.
- The main features for each component of the terminal are listed below. They are further developed in subsequent sections of this document.

The Offshore Platform comprising:

- The **Berth Q1** (or “Western berth”) comprising a 570 m long continuous quay dredgeable to -18 m MLWS from its current depth of -13.0 m MLWS:

Adapted for the operation of 3 to 6 STS gantry cranes and mobile harbour cranes (MHC) including STS crane rails,

Typical cross-section: see drawing MAMH013B-OFF-CS-001 provided in Appendix 1;

- The Berth Q3 (or “Southern berth”) comprising a 230 m long continuous quay dredgeable to -16 m MLWS from its current depth of -12.0 m MLWS:
- Adapted for the operation of mobile harbour cranes,
- Adapted for Ro-Ro ramps

Typical cross-section: see drawing MAMH013B-OFF-CS-001 provided in Appendix 1

- The Berth Q4 (or “Service Berth”) comprising a 135 m long continuous quay, adapted for berthing of tugs and service boats;
- All necessary utilities, networks, lighting, power supply on and for the Offshore Platform;
- The supply and installation of the navigation aids (quantities, number of aids, location and main characteristics by Employer);
- All necessary fittings for exploitation of different mobile handling equipment such as MHC, mobile surge bins, MTS and all vehicles intended for handling, forklift and reach stackers that will handle cargo and containers over the Offshore Platform;
- The operational platform in-between.

The **Transition Platform** comprising on 3.960m² of platform:

- The Platform Office (Building Nr.__20__);
- The Connecting Road;
- A strip adapted to the loads of the Ro-Ro ramps;
- An open-air area for service and parking;

- Road Marking and signalling;
- Road equipment;
- All necessary utilities, networks, lighting.

The **Offshore Trestle** comprising on a length of approximately 3.500m:

- A piled Offshore Trestle and over sea and land, from the Transition Platform to the Bridge over Rio Leon described below;
- Carrying 3 lanes, a sidewalk at the same level as the road and delimited by a separator, and the networks and utilities for the Trestle, the Offshore Platform and Transition Platform (Typical cross–section: see drawing MAMH013B-CRO-CS-001 provided in Appendix 1);
- Road Marking and signalling;
- Road equipment;
- All necessary utilities, networks, lighting, cable trays.

1.1.4 Onshore Works

The Onshore Works are composed of:

- The Access Road;
- The Onshore Platform;
- The Onshore Trestle;
- The Bridge over Rio Leon.

The main features for each component of the terminal are listed below. They are further developed in subsequent sections of this document.

The **Access Road** from the Project Boundaries to the PAMPP access gate, comprising:

- Ground improvement;
- Granular Base;
- Pavement structure;
- Slope Conformation and Reforestation;
- Ditches and Drainage Works;
- Fencing;
- Road Marking and signalling;
- Road equipment;
- Fauna bridges according the requirements of *Ficha PB-03*.

The **Onshore Platform** comprising on 30.44 ha (without include silo area):

- The main access gate
- The reclamation works including:
- Construction of the reclamation with suitable material
- Consolidation, compaction and construction of subgrade;
- Construction of revetment, embankment, retaining wall or any structure around the reclamation works of the Onshore Platform
- The container stacking area including pavements and utilities for the expected stacking capacities (2030):
- Full containers: capacity 1.370 TGS operated by RTG (6+1 in width and 5+1 in height),
- Reefer containers: capacity 246 FGS operated by RTG (6+1 in width and 5+1 in height),

- 41 Reefer racks fitted with 30 reefer plugs each (5 levels x 6 rows)
- Empty containers: capacity 1.966 TGS.
- The area for installation of scanner;
- The buildings:
    - Accommodation Complex Anti-Drug Police
    - Terminal office
    - Pedestrian access gate
    - Firefighting Building
    - Warehouse consolidation and deconsolidation
- Workshop and spare part store
- Fuel Station, Fuel tanks and Control Office
- Customs Warehouse Importation
- Customs Warehouse Exportation
- Government building
- Warehouse Export Inspection Perishable
- Main power distribution centre
- Antinarcotic office
- Washing bay
- Container washing bay
- Washing bay

- Containers-washing bay
- OCR IN
- OCR OUT
- The internal roadways;
- The Car Park and dedicated accesses;
- The civil works for the 3 weighbridges (to be provided by Employer), 2 on OCR IN and 1 on OCR out;
- All necessary utilities and network, i.e. power, water, lighting, civil for telecom,
- All necessary fencing.

The **Silo Area** comprising on 4.56 ha:

- The reclamation works and preliminary consolidation;
- Construction of revetment, embankment, retaining wall or any structure around the reclamation works of the Silos Area;
- Manholes and connection pits for supply and connection of the Silos Area to the networks of the Onshore Platform (drainage, sewage, water supply, power supply, lighting, telecom);
- All necessary fencing at the perimeter of the Silos Area.

The **Onshore Trestle** consisting of the eastern ramp to the Bridge.

The **Bridge** over Rio Leon, with vertical allowance 12.5 m of the level medium of the river (located +1.11 mMLWS) and horizontal clearance of 50m perpendicular to the axis of the river and piles outside the river, carrying 3 lanes, a sidewalk at the same level as the road and delimited by a separator and the networks and utilities, comprising:

- Foundations;

- Superstructure of the Bridge;
- Maximum longitudinal slopes: 2%;
- Steel reinforcement – Supply and installation;
- All accessories necessary to its operation, (Signalization, utilities and lighting; road equipment)

The **networks**, onshore and offshore:

- Stormwater drainage network;
- Sewage network;
- Water supply, reservoir tank and fire-fighting network;
- Power supply network and back-up system.
- Light poles and high masts;
- Floodlighting;
- Supports for the future voice and data network.

1.2 UPDATE FROM 2016 TO 2018 PROJECT DESIGN

The main changes in the project was to move the storage area from the offshore platform to the onshore platform. This change derived in the following modifications:

1.2.1 Offshore platform

Because to Puerto Antioaquia will not store cargo on the offshore platform, its overall size was reduced to less than half of its original size 640 x 200m with cargo storage (see Figure 1-3) to 590 x 91m without cargo storage (see Figure 1-4).

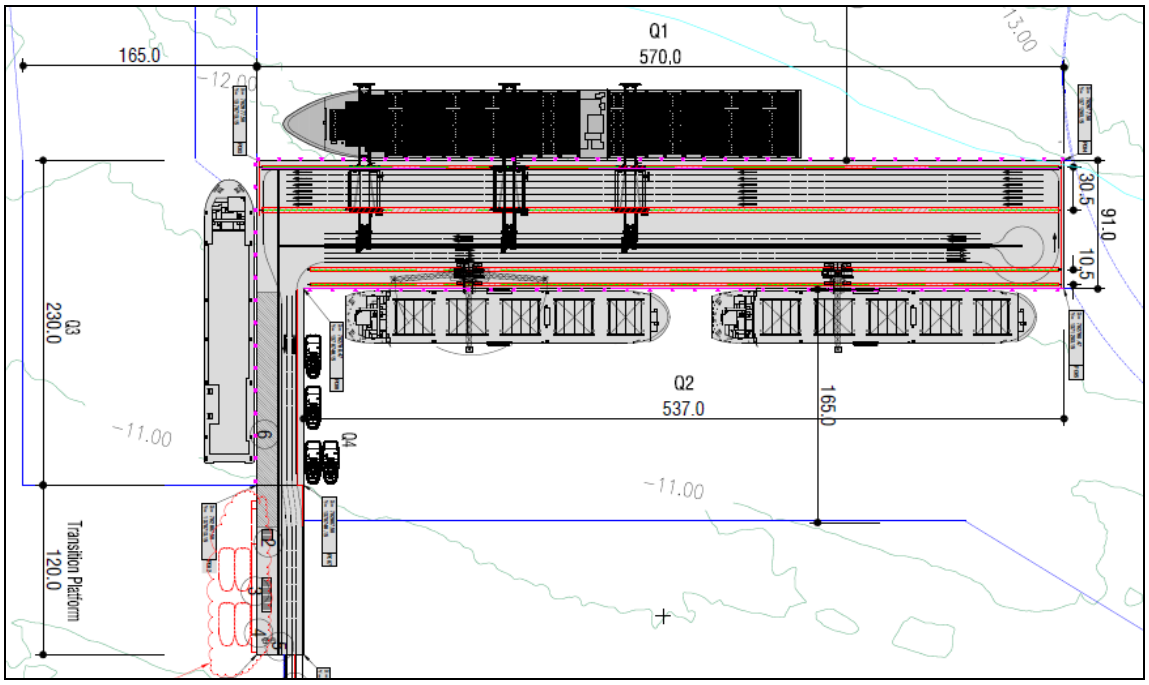

Figure 1-3 Offshore platform without cargo storage - 2018

Fuente: Aquaa & Terra Ingenieros Consultores Asociados 2.017

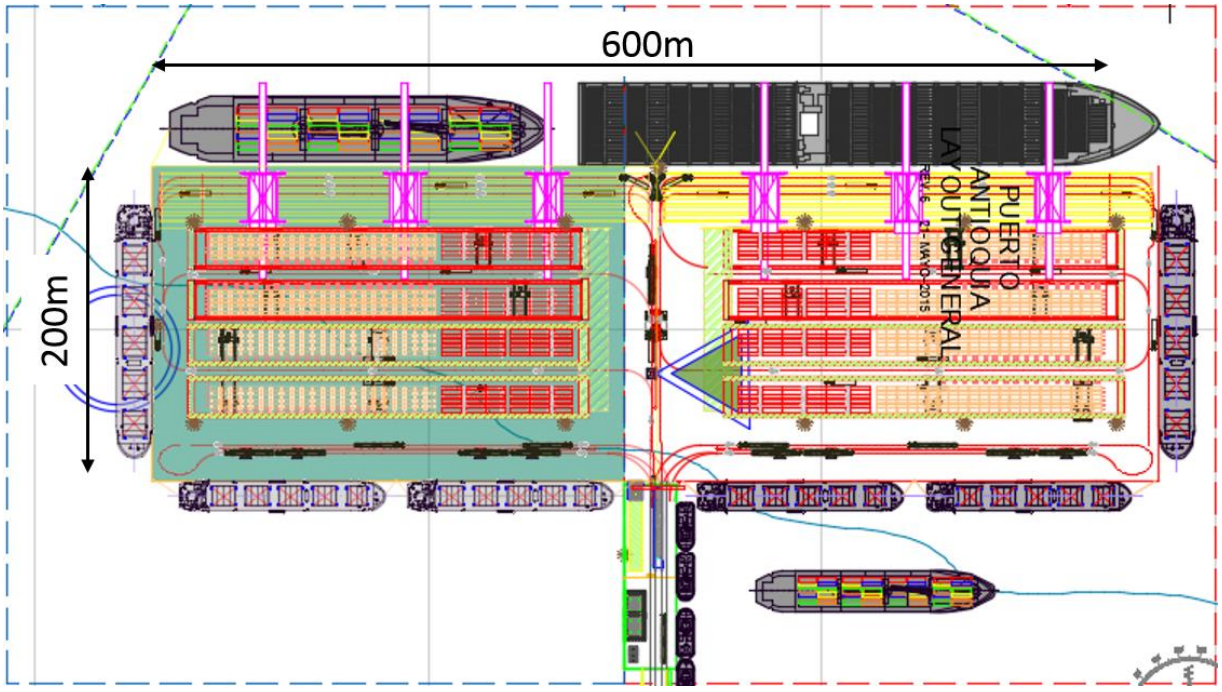

Figure 1-4 Offshore platform with cargo storage – 2016

Fuente: Aquaa & Terra Ingenieros Consultores Asociados 2.017

In below figure, there is a comparison between two platform configurations.

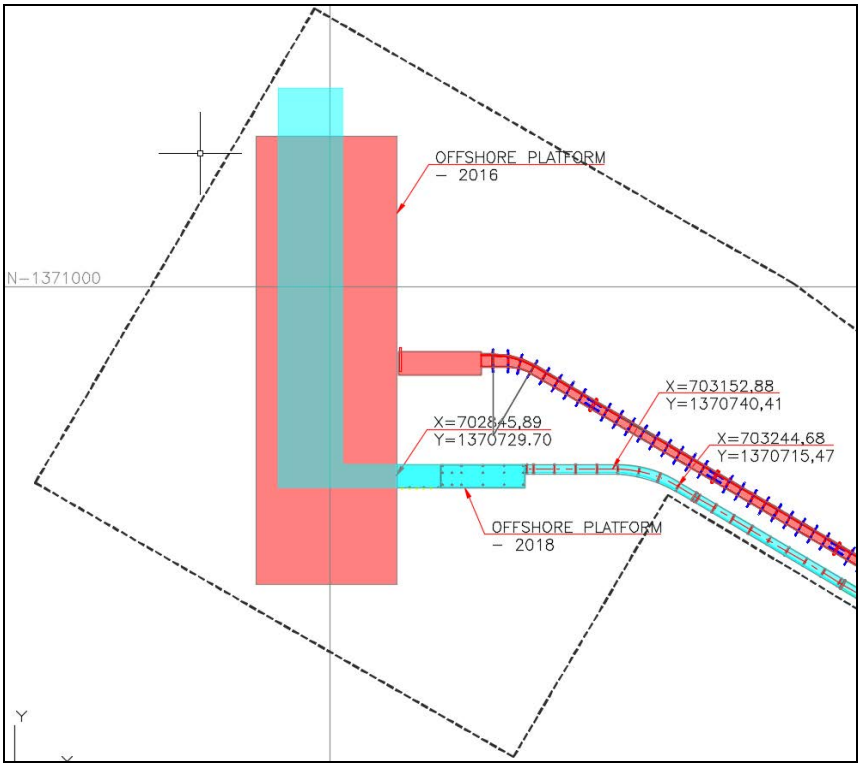

Figure 1-5 Offshore platform 2016 - Offshore platform 2018

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

1.2.2 Dredging

The new platform configuration affects the geometry of the access channel and turn basin and requires less dredging that the original design. The specific changes in dredging depth, area and volume are included in the table below:

Tabla 1-1 Changes in the capital dredging

Item	Description	Capital dredging 2016	Capital dredging 2018	Reduction
1.0	Depth	QUAY1 Access Chanel: 16,7m QUAY1: -16,7m QUAY2: -13,7m QUAY3 Access Chanel: 13,7m QUAY3: -13,7m	QUAY1 Access Chanel:16,5m QUAY1: 16,3m QUAY2: 13,5m QUAY3 Access Chanel: 13,0m QUAY3: 13,0m	Decrease 0,2m Decrease 0,4m Decrease 0,2m Decrease 0,7m Decrease 0,7m
2.0	Total area	1'328.230 m^2	928.905 m^2	Reduction in 399.325 m^2 (-30%)
3.0	Total volume	2'794.375 m^3	2´089.547 m^3	Reduction in 704.828 m^3 (-25%)

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

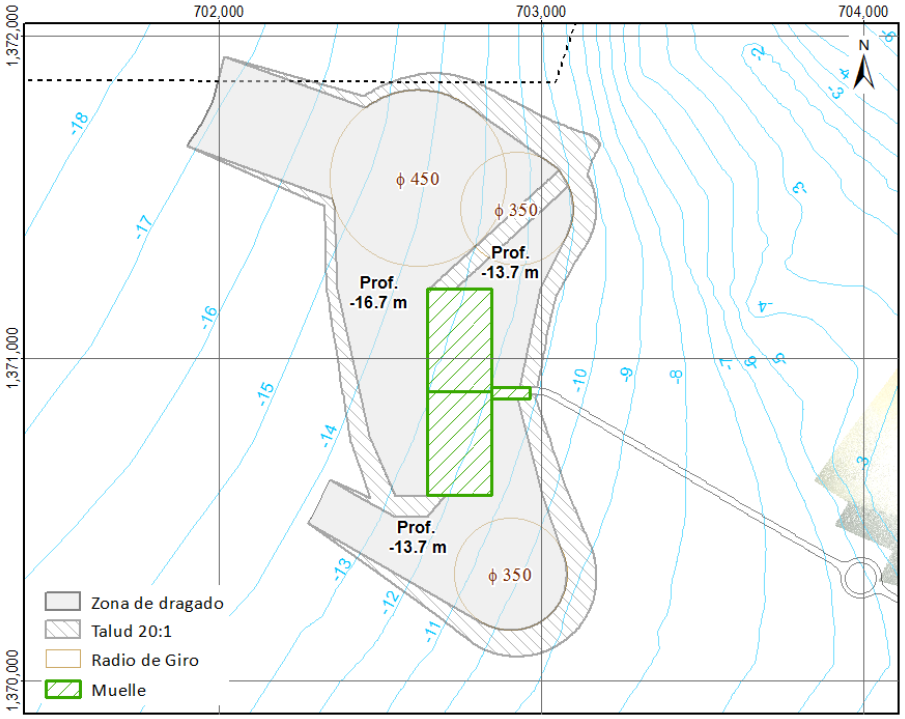

Figure 1-6 Dredging area Offshore platform 2016

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

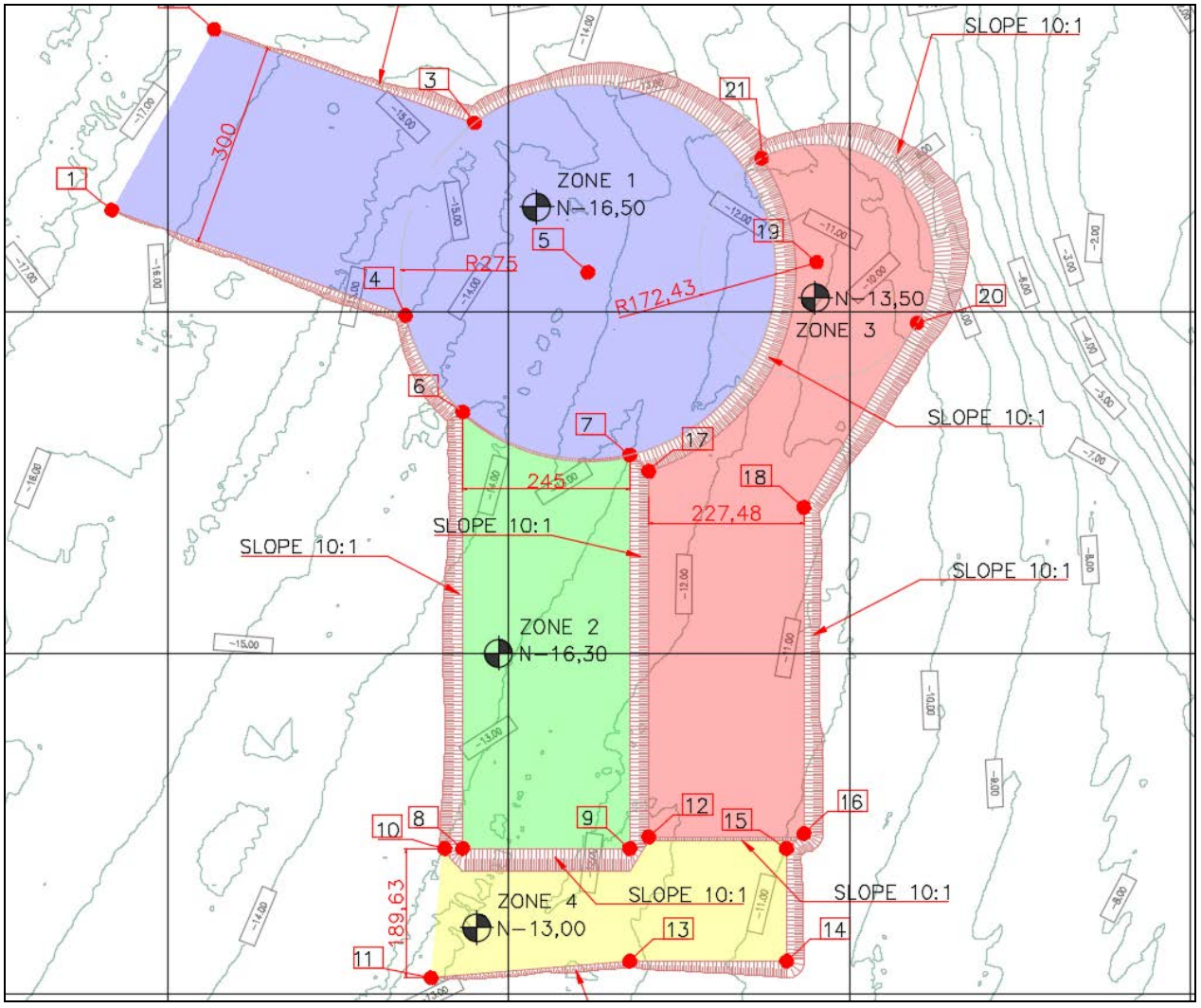

Figure 1-7 Dredging area Offshore platform 2018

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.018

Finally, the figure below provides a comparison of the two dredging configurations.

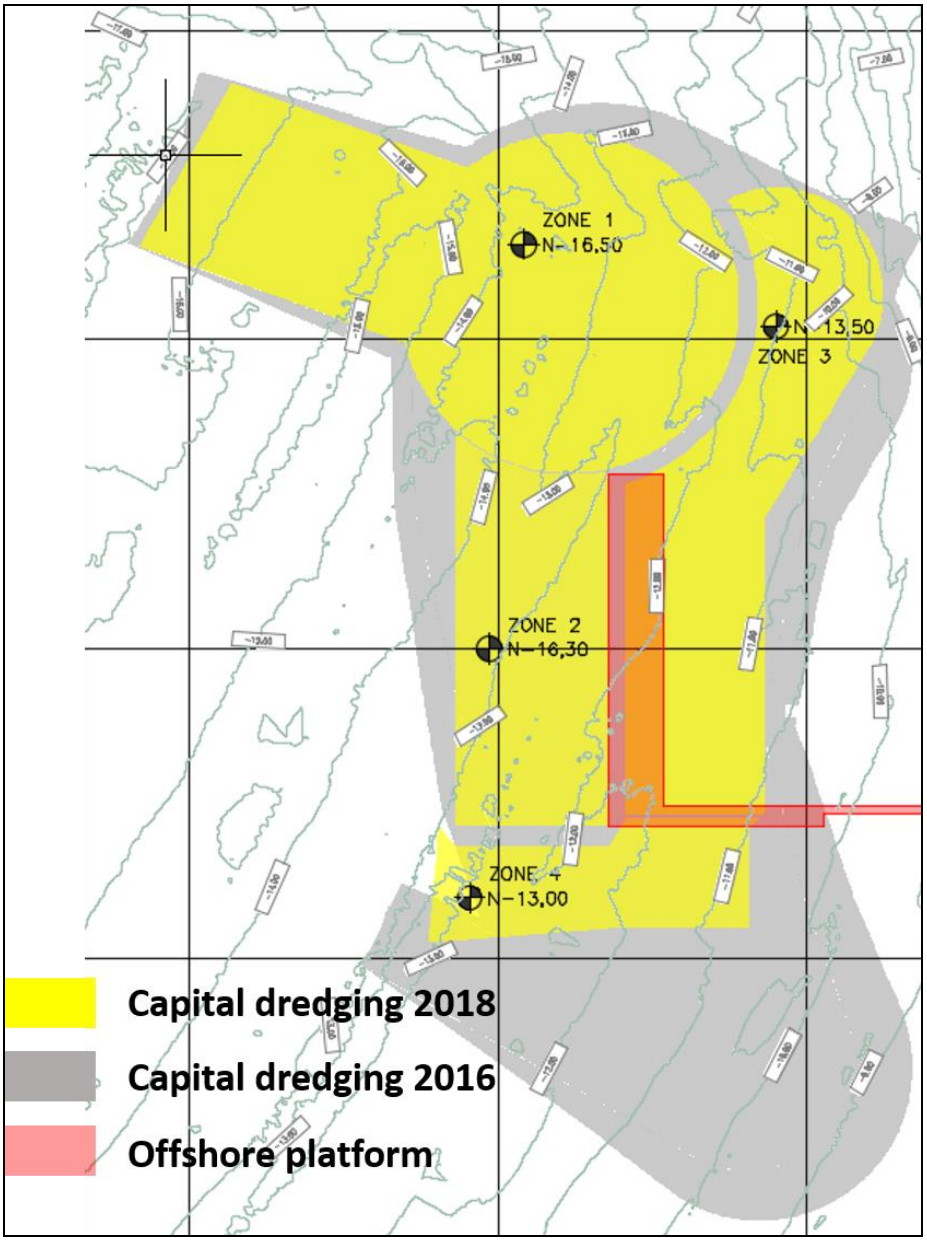

Figure 1-8 Dredging 2016 and Dredging 2018

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.018

1.2.3 Offshore trestle

To access to the new offshore platform, it was necessary to modify the trestle alignment, as is shown in the Figure 1-9 below.

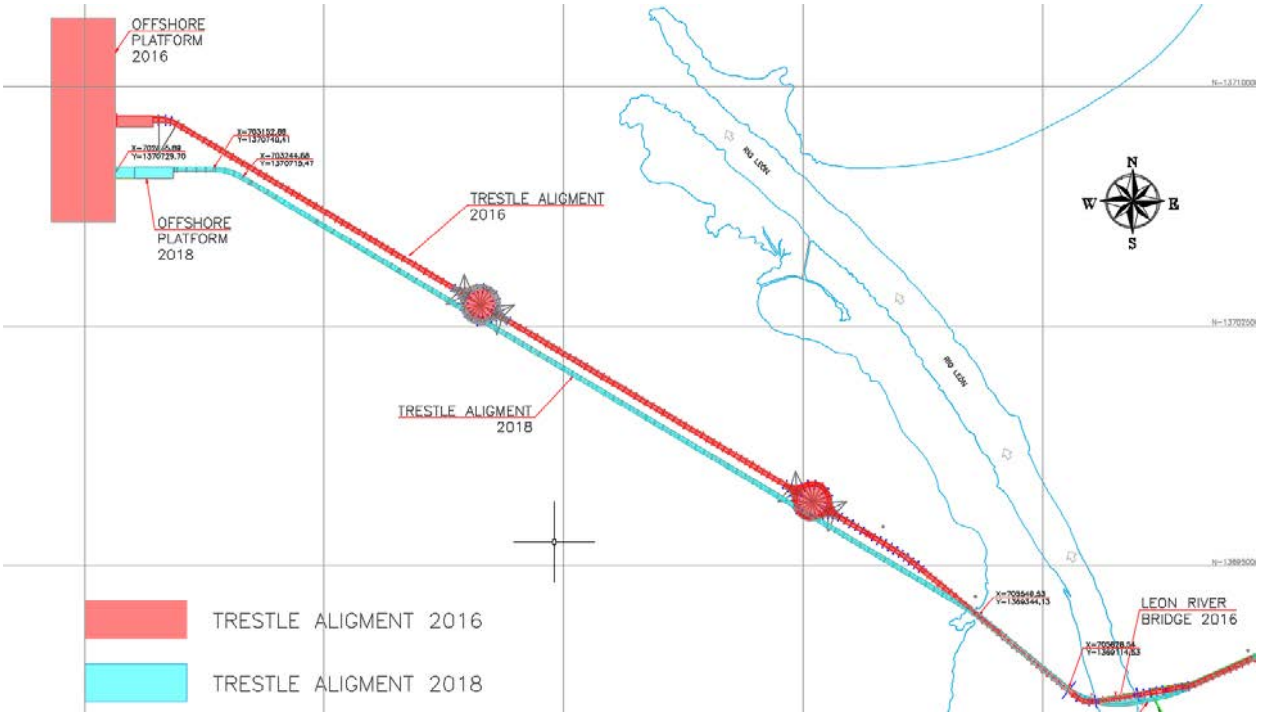

Figure 1-9 Trestle aligment 2016 and 2018

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

1.2.4 Bridge

The bridge changes mainly in its geometry to improve the traffic conditions, passing from a straight bridge to a curved bridge, as can be seen in Figure 1-10. There will also be a reduction in the clearance going from 15m to 12.5m as shown in Figure 1-11.

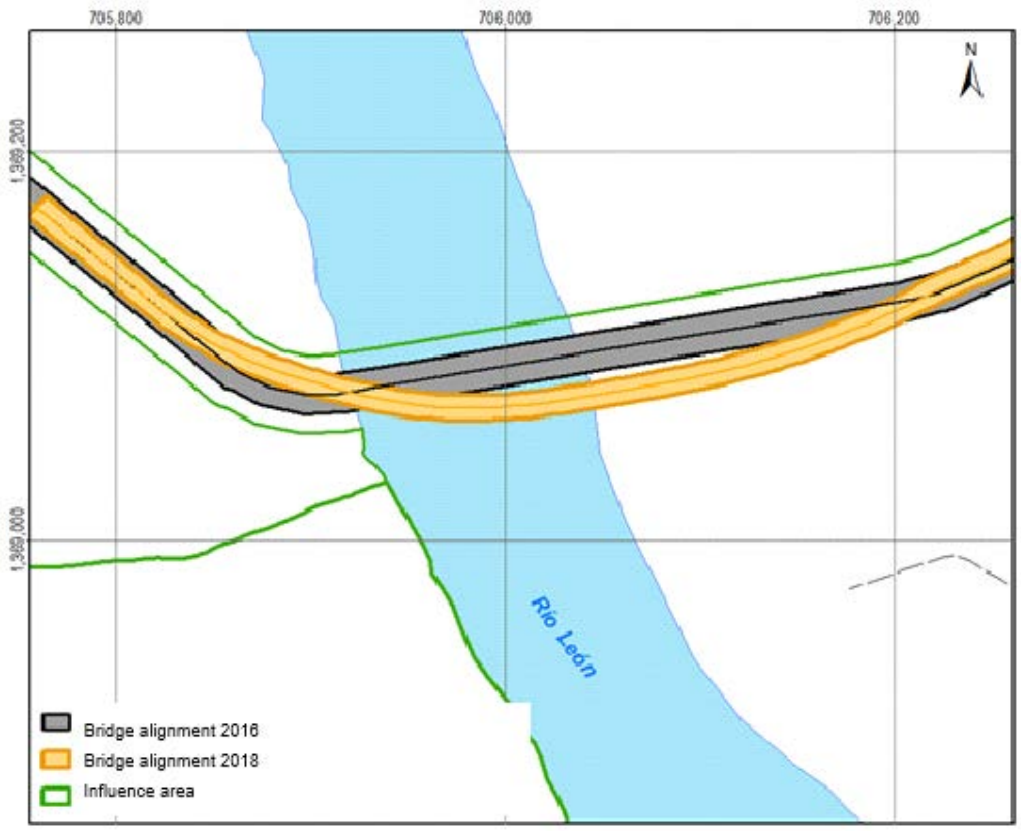

Figure 1-10 Trestle Realignment

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

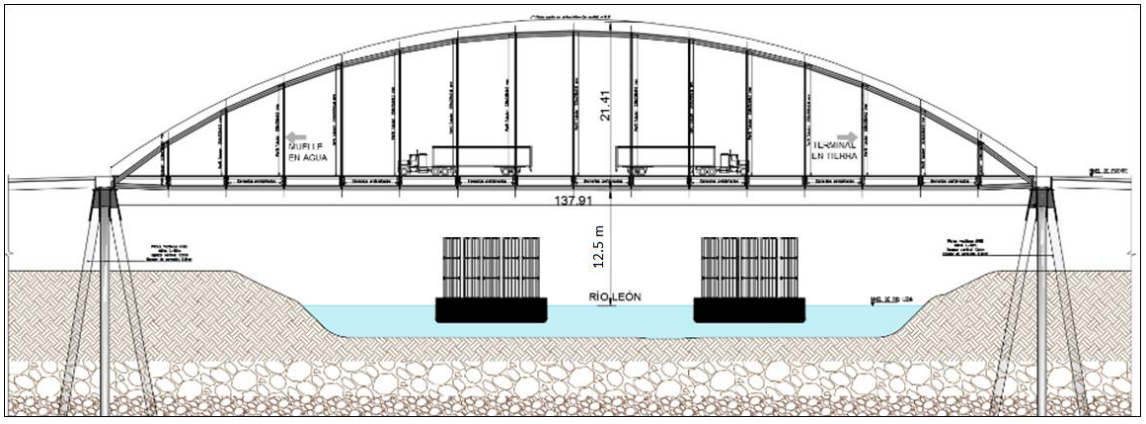

Figure 1-11 Bridge clearance

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

1.2.5 Onshore platform

In the first configuration of the onshore platform was designed to receive the port facilities, crossdocking operation and the silo storage, as is shown in Figure 1-12 below:

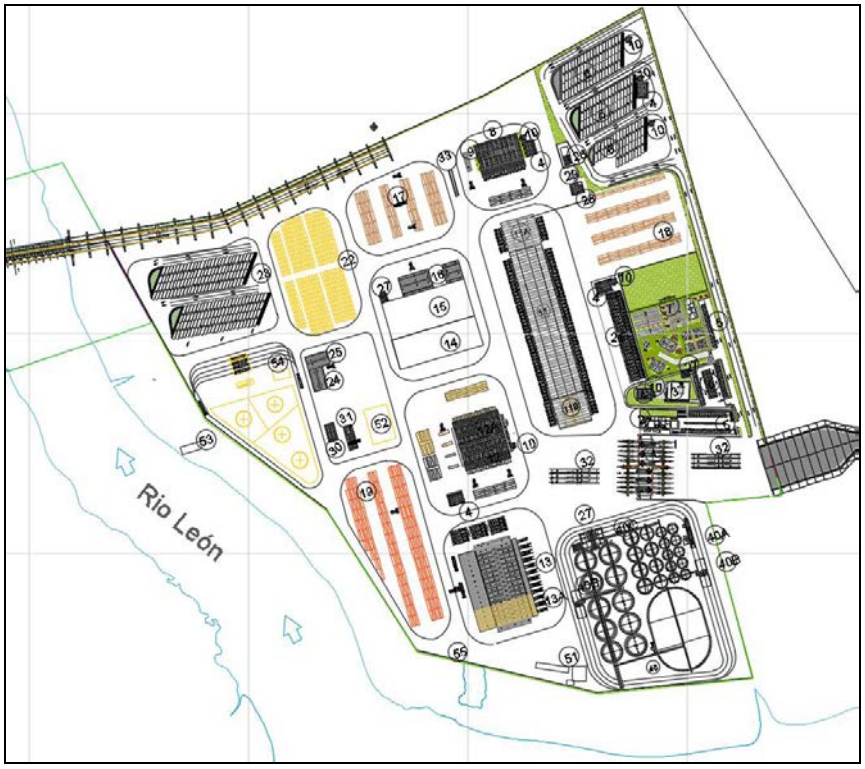

Figure 1-12 Onshore layout 2016

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

With the new configuration of offshore platform, the cargo storage has been moved to the onshore platform and several buildings and warehouses relocated to receive the Ro-Ro cargo and full and empty containers, as is shown in the Figure 1-13.

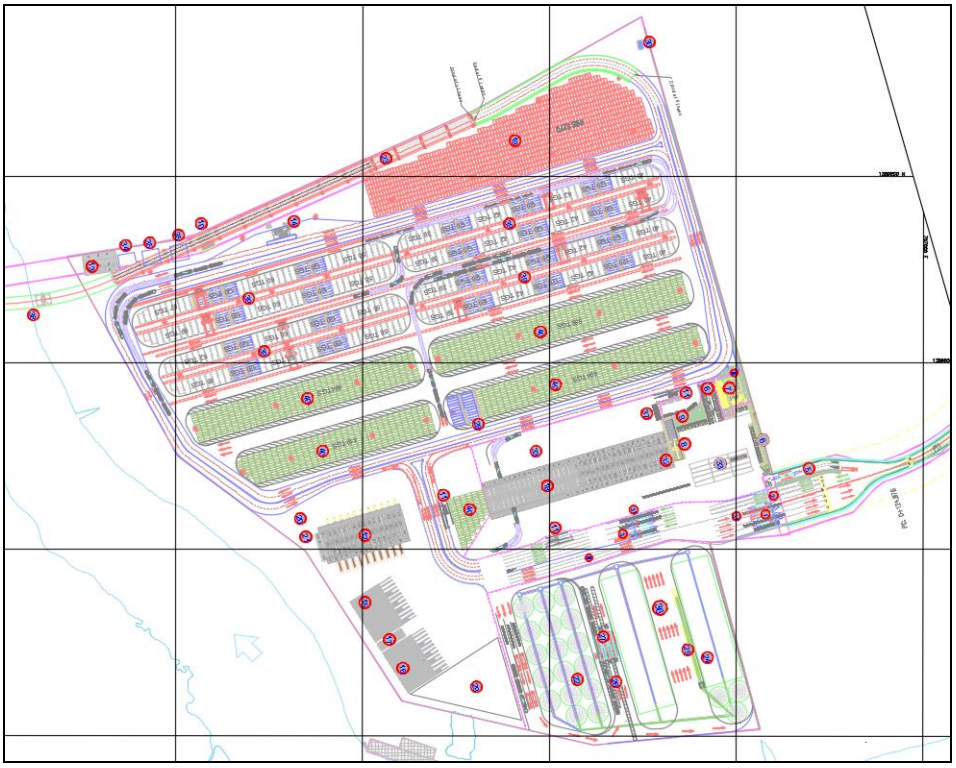

Figure 1-13 Onshore layout 2018 (MAMH013B-ONS-GE-001)

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

1.3 DESCRIPTION OF AUXILIARY FACILITIES

1.3.1 Connection to national grid

In order to connect the project to electrical national power grid, PAMPP will build a line in 115.000V (see Tabla 1-2) from the new Substation installed in Nueva Colonia to the project boundary (approximately 5.450m).

Tabla 1-2 Rated Voltages

AREA/FUNCTION	RATED VOLTAGE (V)	RATED FREQUENCY (Hz)	CONNECTION	PHASES
HV Line incoming	115.000	60	Delta	3

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

The scope of works including followings components:

- Line and mast to bring the line from substation Nueva Colonia to project boundary
- HV switching cabinet for connection to mains
- All substations and pillars;
- All connection to MV and LV;
- Cells in the main substations
- Switchgear; including all protective relay required, in the main substation for future
- All cable, cable ducts and cable vaults for the HV grid;

1.3.2 Access road

The works for access road includes all activities necessary to guarantee the access from Nueva Colonia to the Project Boundary to PAMPP, these activities are:

- Ground improvement;
- Granular Base;
- Pavement structure;
- Slope conformation and protection against erosion;
- Ditches and Drainage Works.
- Wire fences delimitation according to INV 800 - 13 CERCAS DE ALAMBRE specification
- Road Marking and signage.

The boundaries of the Access Road are provided on the drawings MAMH013B-ROA-GE-001.

1.3.2.1 Construction roads

The project site is currently connected to the public road networks through PAMPP-Nueva Colonia access road, crossing Nueva Colonia community and a secondary road between Nueva Colonia and Rio Grande until the National road 62 (between Apartado and Turbo), as shown in the following Figure 1-14.

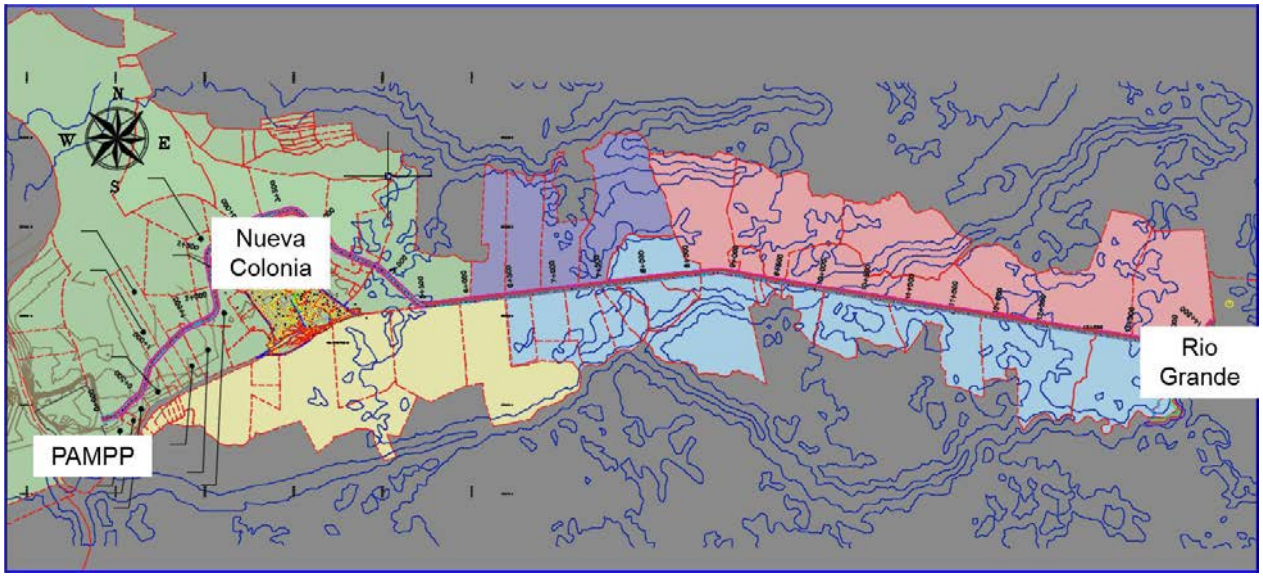

Figure 1-14 General Arrangement of Access roads

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

According Inventory of the Road Network in the Department of Antioquia, the secondary road between Nueva Colonia and Rio Grande is part of municipality of Turbo and it is identify with the code 05837VT36.

Initial estimates of traffic volumes indicate that:

- The majority of the traffic is for earthworks activities (transport of materials from quarries) which will use public roads.
- A significant amount of traffic is to be managed throughout the project, and in particular between months 6 and 12 which corresponds to the peak of site preparation and backfilling works for the onshore terminal.

The estimation also highlights the criticality of the traffic management for the good execution of the project, according this is necessary the implementation the following documents:

- Traffic Management Plan, which was identified hazards, the main potential impacts associated with the Project, vehicle operation, signage plan, emergency planning and other important components to mitigates the impacts on the community during construction phase.

- Chapter 11 from EIA Report (Plans and Programs) / Ficha: Program of Community Agreements.

- Chapter 11 from EIA Report (Plans and Programs) / Ficha PMA-2: Environmental management of vehicles, machinery, equipment, ships, and marine facilities.

- Signage Plan, The traffic management plan will be complemented with the Signage Plan to indicate to the community the traffic of heavy vehicles and limited the area where was identify potential hazards.

Figure 1-15 shows the routes to be used during construction that require adaptation or construction. The port will require the adaptation of the route that leaves Nueva Colonia and arrives at the port, which is licensed and authorized by the ANLA. Likewise, the Rio Grande Nueva Colonia highway will be a road used for the transportation of vehicles during the construction of the project, which will not require constructive interventions or adjustments, since as the LTA mentions, "the road resists in its current state with the flow of construction and operation." In the same way, in order to reduce and avoid the potential impact and risks when crossing through Nueva Colonia during operation, the option of a variant route is considered. It should be noted that this variant is not part of the request for capital from banks and in case of being executed, it will be governed by Colombian environmental regulations.

Figure 1-15 Routes and adequacy requirements

Fuente: Aqua & Terra Consultores Asociados S.A.S., 2018

For the construction of auxiliary facilities, the acquisition of materials from existing sources near the project in the municipalities of Turbo (Currulao) and Carepa is proposed, using Route 62 (Apartadó and Turbo). The vehicles that currently travel through this route are mostly heavy goods vehicles.

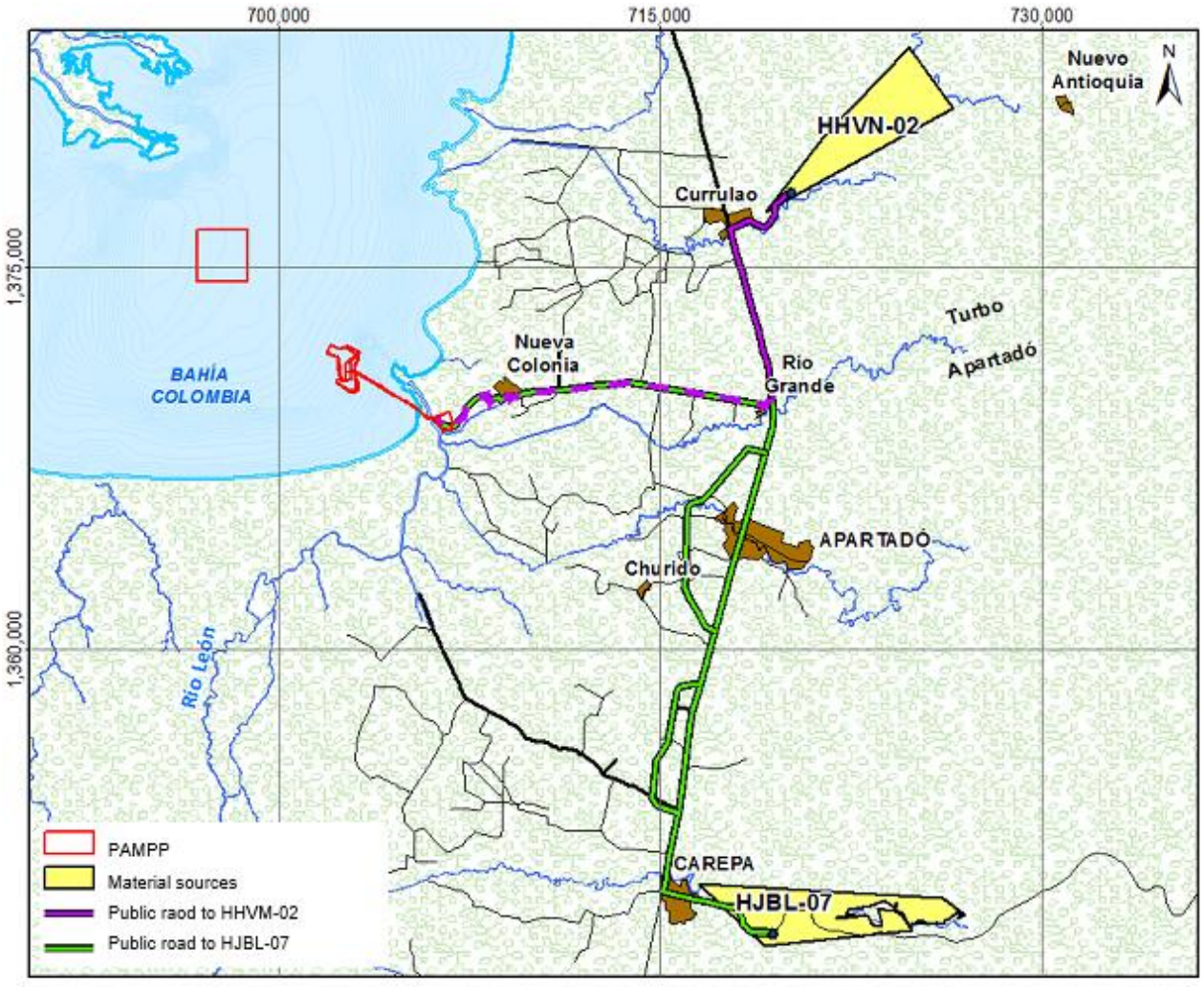

Figure 1-16 shows the routes for the transportation of the material between the quarries and the site of execution of the Port Terminal "Puerto Antioquia" in the municipality of Turbo, in the corregimiento of Nueva Colonia.

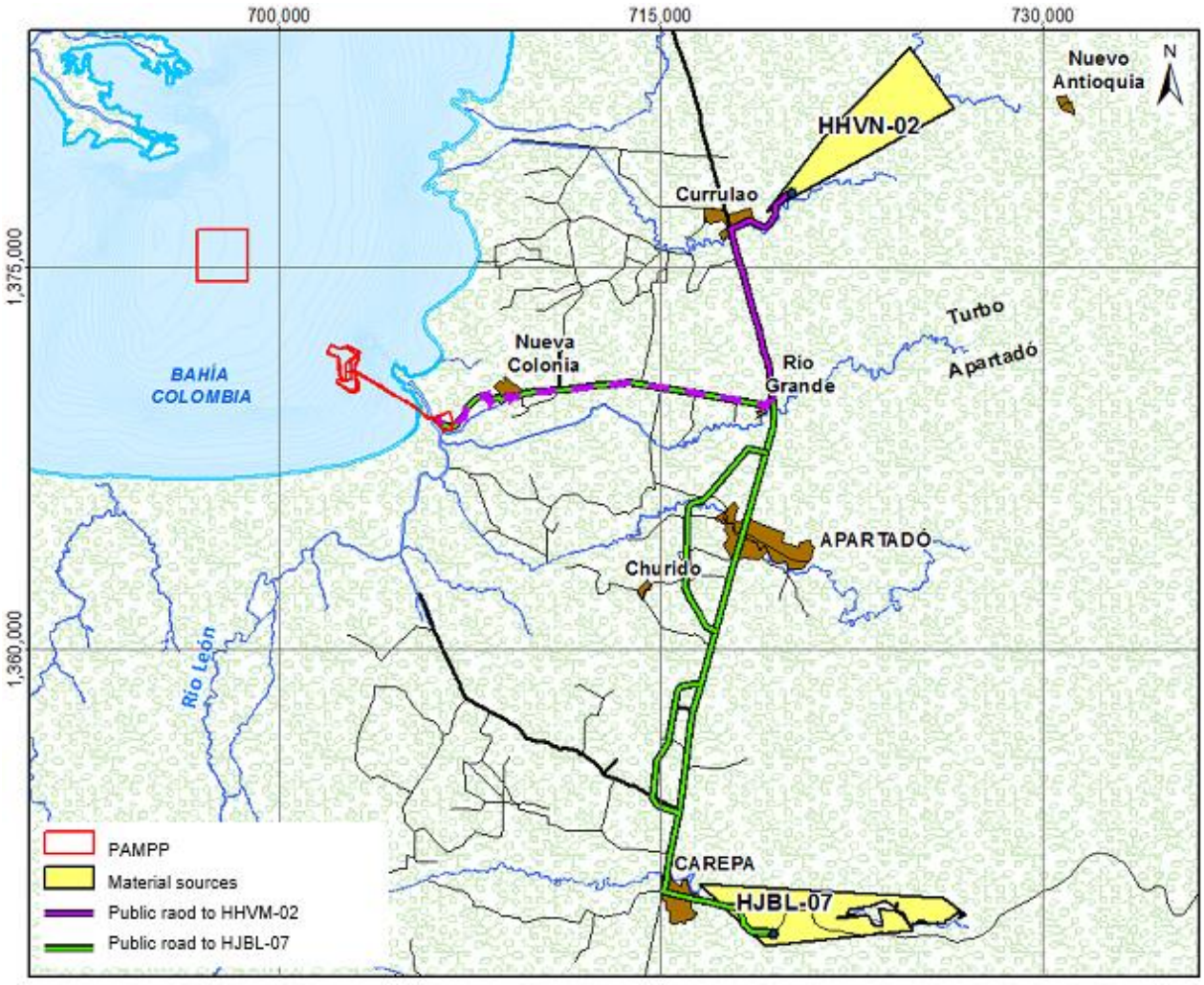

Figure 1-16 Routes between material sources and the site of the Project
Fuente: Aqua & Terra Consultores Asociados S.A.S., 2018

The road used to transport materials is the Transversal de las Americas, which is part of the infrastructure program "4G routes" of the National Government that has been executed almost in its entirety.

These fourth generation routes (4G) have as main objective to improve the competitiveness of the country, reducing the cost and time of transport of people and, especially, cargo, from manufacturing points to export ports.

As shown in Figure 1-17 the "Transversal de las Americas" national road has included the rehabilitation and construction of dual carriageway, therefore it is possible to guarantee access to the project of Puerto Antioquia in an efficient manner during the phase of construction.

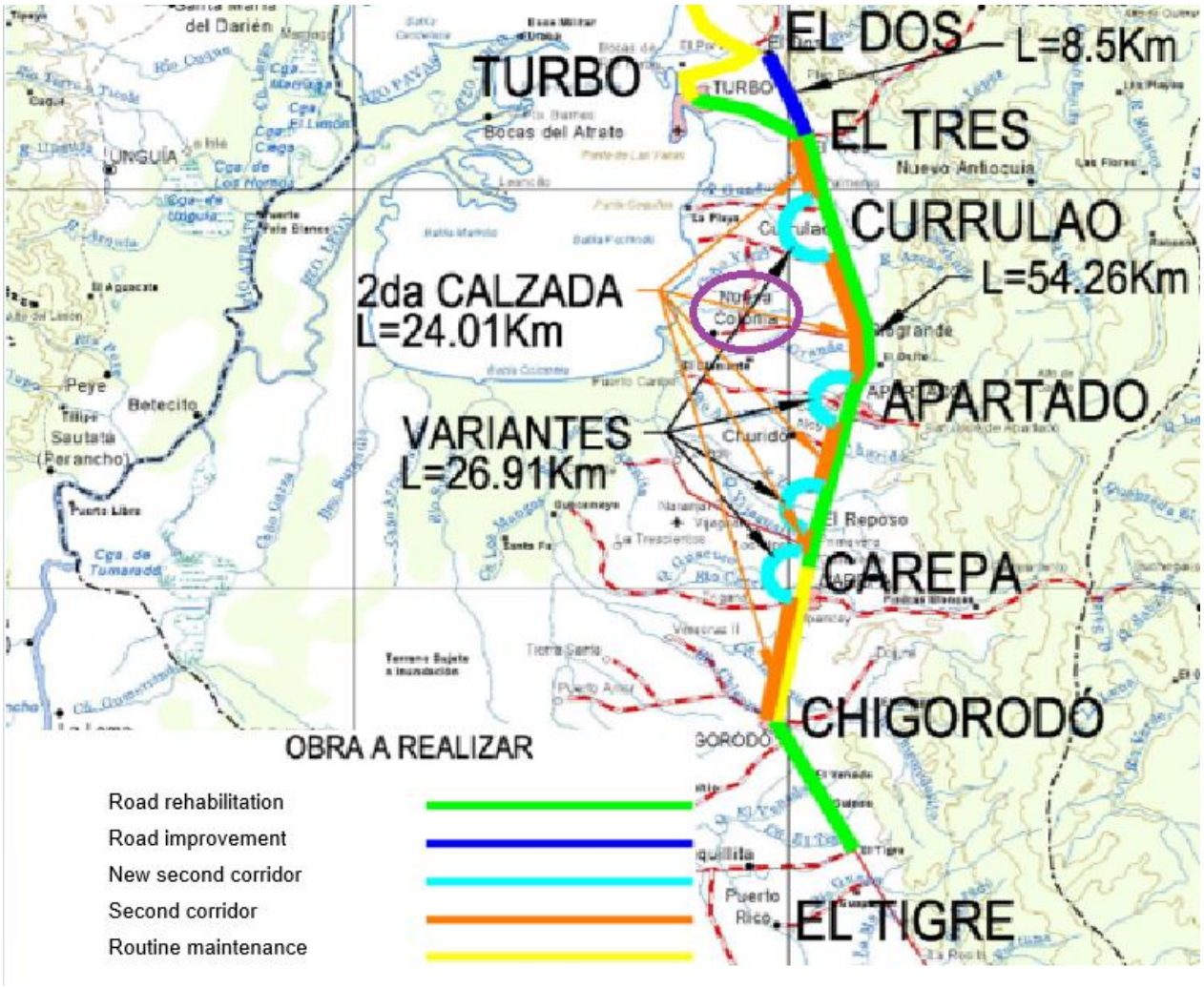

Figure 1-17 Public road"Transversal Las Américas"

Fuente: Transversal de Las Américas[1], 2017 modificado por Aqua & Terra Consultores Asociados S.A.S., 2018. Note: the activities of rehabilitation, improvement, new roads, second roads and routine maintenance are responsibility of the Colombian State and are in the process of being executed.

1 TRANSVERSAL DE LAS AMERICAS, SECTOR 1. [en línea]. http://www.transversaldelasamericas.com/index.php/quienes-somos [citado el 07 de junio de 2018]

1.3.2.2 Operation alternatives roads

For the operations phase PAMPP is working on the design a new access road, which avoid to crossing through the community of Nueva Colonia. To define this new corridor, PAMPP is analysing three possible routes (see Figure 1-18).

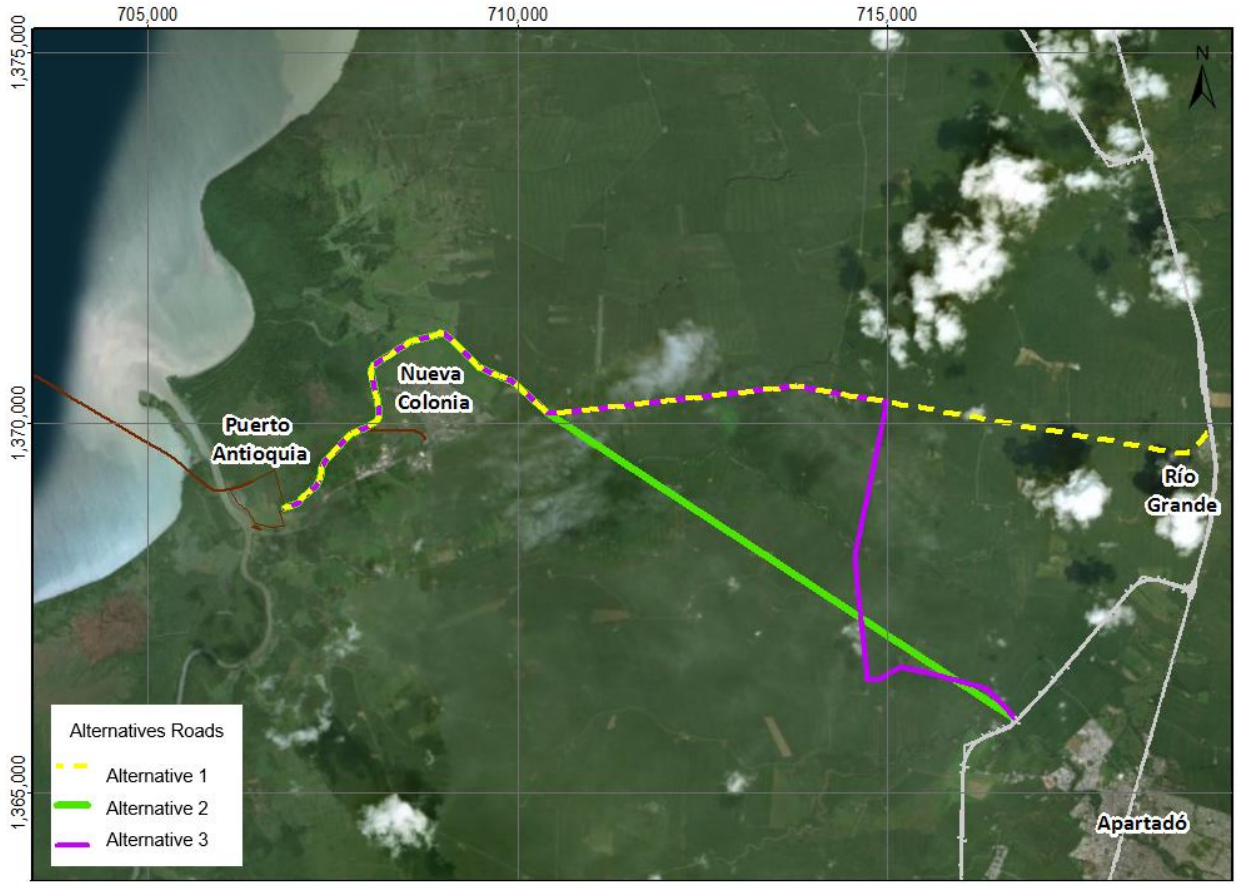

Figure 1-18 Access road alternatives – Operation phase

Fuente: Aqua & Terra Ingenieros Consultores Asociados 2.017

In the following table will listed the main specifications of every alternatives:

- Alternatives 1: This option consists of rehabilitating and improving the existing road between Rio Grande and Nueva Colonia, according national road building norms (Manual de diseño geometrico de vias of INVIAS) and building a bypass road around Nueva Colonia to connect to the PAMPP access road (section build by Contractor).

- Alternative 2: This route begins with the Apartado diversion road and connects with the road to Nueva Colonia through an existing road called Palos Blancos. After which it would connect with the existing road and then join a bypass road around Nueva Colonia to finally connect to the PAMPP access road.

- Alternative 3: This route begins with the Apartado diversion road as well and then goes straight to Nueva Colonia, where a bypass road would be buit around Nueva Colonia to finally connect to the PAMPP access road.

1.3.3 Workers camp facility

During construction phase, the Contractor will install a camp next to the onshore platform where will be find the following side facilities with the capacity of 400 workers:

- Contractor offices
- Employer offices
- Employer´s representative offices
- Contractor personal lodging
- Labs
- Aggregate storage
- Concrete batch plant
- Spare parts warehouse
- Canteen

1.3.3.1 Description of other facilities

The population considered to be accommodated in the camp is limited to the expatriate staff of Employer and several main Subcontractors, and Colombian workers who are not from the Uraba region (ie. Medellin, Bogota, etc). The population forecast estimate a peak of about 400 people

using those camp facilities; the current scheme is to subcontract both the construction and management of facilities throughout the whole project duration (lodging, catering, maintenance,…) to a single specialized Subcontractor.

The contractor has been planning to mobilize and build several temporary offices and facilities close to jobsite as follows:

- Contractor's main office (2 stairs building for approx. 100 persons working at peak)
- Employer's office according to the definition of the Employer's Requirements
- Canteen (same facilities for the accommodation area)
- Nursery
- Bathrooms
- Various other utilities (generators, water tank and treatment plant, lightings,…)

All the above offices will be made of modular units erected over superficial foundations only.

The Contractor is planning to build an accommodation camp and associate facilities close to jobsite as follows:

- Staff accommodation units (various sizes for single or double occupancy)
- Several dormitory units for up to 275 workers (area/volume per person shall comply with the ''resolución 2400 de 1976 de la ley Colombiana and additional'')
- Canteen (2 rooms for staff and roll): same facilities for the office area
- Fitness room, multipurpose playing court, recreation room and barbecue/green areas
- Lavatory room, workshop/warehouse for maintenance purposes

It shall be highlighted that the accommodation camp will be fully fenced and security gates installed to ensure a proper control 24/7.

About casino camps, at present it is foreseen to build the canteen as follows:

- Kitchen, warehouse and cold/fridge room
- Room for staff (50 persons capacity)
- Room for roll (150 persons capacity)

Same canteen will be used to serve breakfasts, lunches and dinners for both the day and night shifts (both local workers and staff/workers resting in the accommodation camp).

1.3.3.2 Networks

- Power supply

A diesel generator 350kVA will be installed; diesel tank providing up to 3 days of autonomy.

- Potable and sewage treatment plant

The following shall be provide:

  - Water pump and potable treatment plant (PTAP) located close to service quay (as per EIA license)
  - Water tank in the camp facilities
  - Potable and sewage networks for all accommodation and office units
  - Sewage water treatment plant (PTAR) close to the outfall Leon river (as per location defined in the EIA license).

- Solid waste handling

It will consist of normal domestic wastes,Contractor plans to subcontract certified subcontractor to perform the collection and disposal of solid wastes to the authorized places.

2 APPENDIX 1 – DEFINITION DRAWINGS

MAMH013B-OFF-CS-001

MAMH013B-ONS-GE-001

MAMH013B-ROA-GE-001

COMPLIANCE PLAN OF SOCIAL AND ENVIRONMENTAL PERFORMANCE STANDARDS

PUERTO ANTIOQUIA

DOCUMENT TITLE:	Supplementary material - Areas of influence and sensitive receptors

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2 AREAS OF INFLUENCE AND INTEREST

2.1 AREAS OF INFLUENCE AND INTEREST

2.1.1 Area of influence authorized by Resolution 0078 of January 28, 2016 - Environmental License

In accordance with the terms of reference for the preparation of the Environmental Impact Study - EIA in construction projects or expansion and operation of deep sea ports (MM-INA-05) issued by the Ministry of Environment and Sustainable Development of Colombia through Resolution 0112 of January 28, 2015, the area of influence for the port project Puerto Bahía Colombia of Uraba - Puerto Antioquia, was raised based on the minimum unit analyzed.

The areas of influence were defined by component and group of components with the minimum unit of analysis in accordance with the activities or works that will be executed for the construction and operation of the Port Terminal.

The areas were defined according to the manifestations of the environmental impacts that are expected in the intervention area and the magnitude of the impact that the construction of the infrastructure for the port terminal (terrestrial and marine), the realignment and improvement of the access road from the Nueva Colonia corregimiento to the access to the Terrestrial Terminal, the pier on the León River, the bridge and the viaduct. To see more detail of the biotic, abiotic areas of influence and their components, refer to chapter 4 of the Environmental Impact Study.

For its part, for the socioeconomic component, the town center of the Nueva Colonia district and the section of the road that connects the populated center with the area where the construction of the port is projected, are the main elements that define the area of socioeconomic influence.

Additionally, a marine area that corresponds to the polygon where the marine wharf is planned and the dump area of dredged material is incorporated within the area of socioeconomic influence. Figure 2.1 shows the area of socioeconomic influence authorized by Resolution 0078 of January 28, 2016 of the National Environmental Licensing Authority, which authorizes the development of the various activities necessary for the construction and operation of the project.

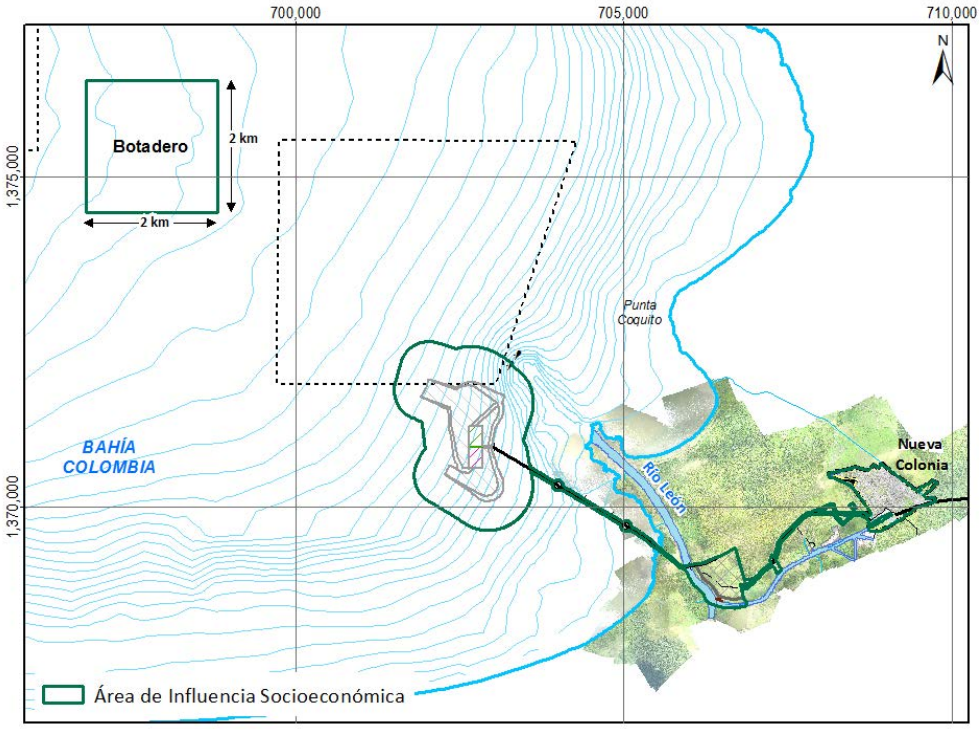

Figure 2.1 Area of Socioeconomic influence

2.1.2 Auxiliary activities of the project, areas of interest and their sensitive receptors

Based on the description of the auxiliary activities of the previously presented project, an analysis of the areas of potential of interest and of the sensitive receptors is carried out, which could be affected or not by the auxiliary activities.

2.1.2.1 Road Río Grande - Nueva Colonia – Constructive phase

The public highway Rio Grande - Nueva Colonia will be a road used mainly during construction. This road crosses the communities of Río Grande and Nueva Colonia (Figure 2.2). The use of this road is authorized for the construction and operation of the project. The community of Nueva Colonia is part of the area of influence licensed by the competent Environmental Authority in Colombia, while the Community of Río Grande (Photography 1), not being a community close to the project, is not linked to this area of influence . However, taking into account the auxiliary activities that will be developed by the project during the construction of the same, the population and dwellings that are located on each side of the road in the populated center (Photography 1) along the road (Photography 2), are considered areas of interest. In Photography 2 it can be seen how, along the route of the existing road, once the town of Río Grande is over, the presence of banana crops with absence of dwellings inhabited by the community is evident. In section 2.1 the characterization of the houses along the road is presented.

Figure 2.2 Road Río Grande – Nueva colonia

Photography 1 Community de Río Grande

Photography 2 Road to the Port from Rio Grande - new Colonia

2.1.2.2 Access alternatives - operation phase

Although the Rio Grande - Nueva Colonia access road is an alternative for use during construction and operation, Puerto Antioquia considers different access alternatives that reduce the impact or potential impact on the community of Río Grande and Nueva Colonia in the future operation. , for which different alternatives are being evaluated, as mentioned in the description of the auxiliary facilities and as shown in Figure 2.3.

Alternative 1 leaves from Rio Grande and follows the existing road that leads to the town center of Nueva Colonia. Once it is close to Nueva Colonia, it deviates to the right of the road, skirting the town center and joining again with the licensed road of the project; throughout this variant there are no different population centers of Nueva Colonia. Alternative 2 starts in the double-carriageway variant of Apartadó and is directed on an existing road used to transport vehicles from the banana companies; this alternative is connected to the Rio Grande Nueva Colonia variant and then continue along this route, surrounding Nueva Colonia and connecting with the licensed road of the project without intervening other population centers. Like Alternative 2, Alternative 3 starts in the double-carriageway variant of Apartadó and goes straight to intercept the Rio Grande Nueva Colonia highway, where it continues to skirt Nueva Colonia until it joins the project's licensed road without intervening other population centers; this route only crosses banana crops from the beginning.

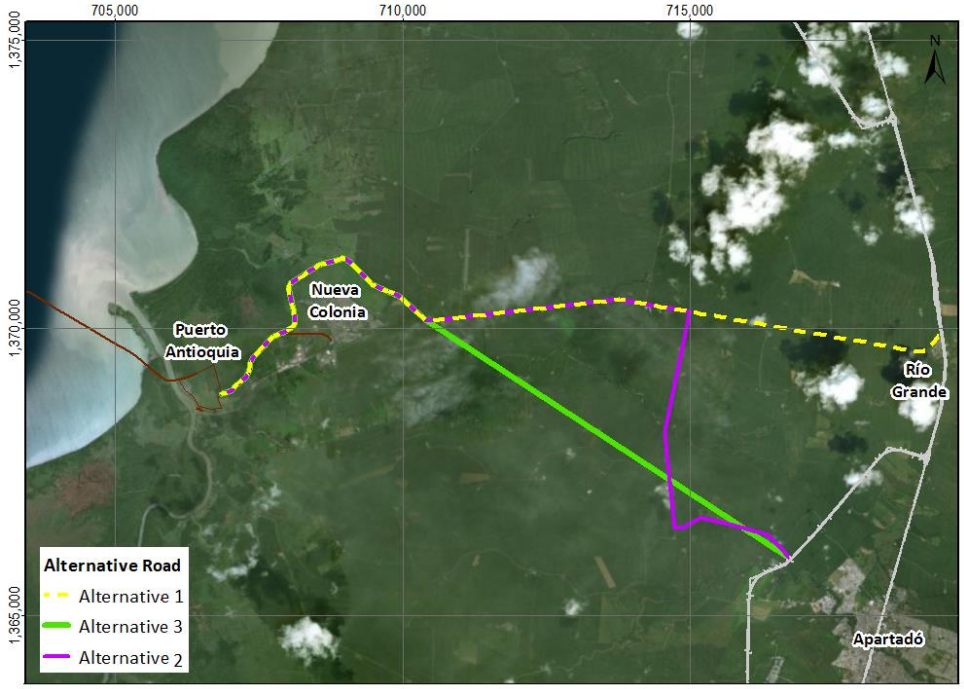

Figure 2.3 Alternatives for access during the operation of the project

2.1.2.3 Connection to the national energy network

To meet the port's energy demand, the port will be connected to the Nueva Colonia de Energía sub-station, managed by Empresas Públicas de Medellín. The layout of this electric line will be parallel to the route that is intended to be developed for the operation, bordering the community of Nueva Colonia, for this the environmental licensing will be advanced with the competent environmental authority and the respective property study will be carried (Figure 2.4).

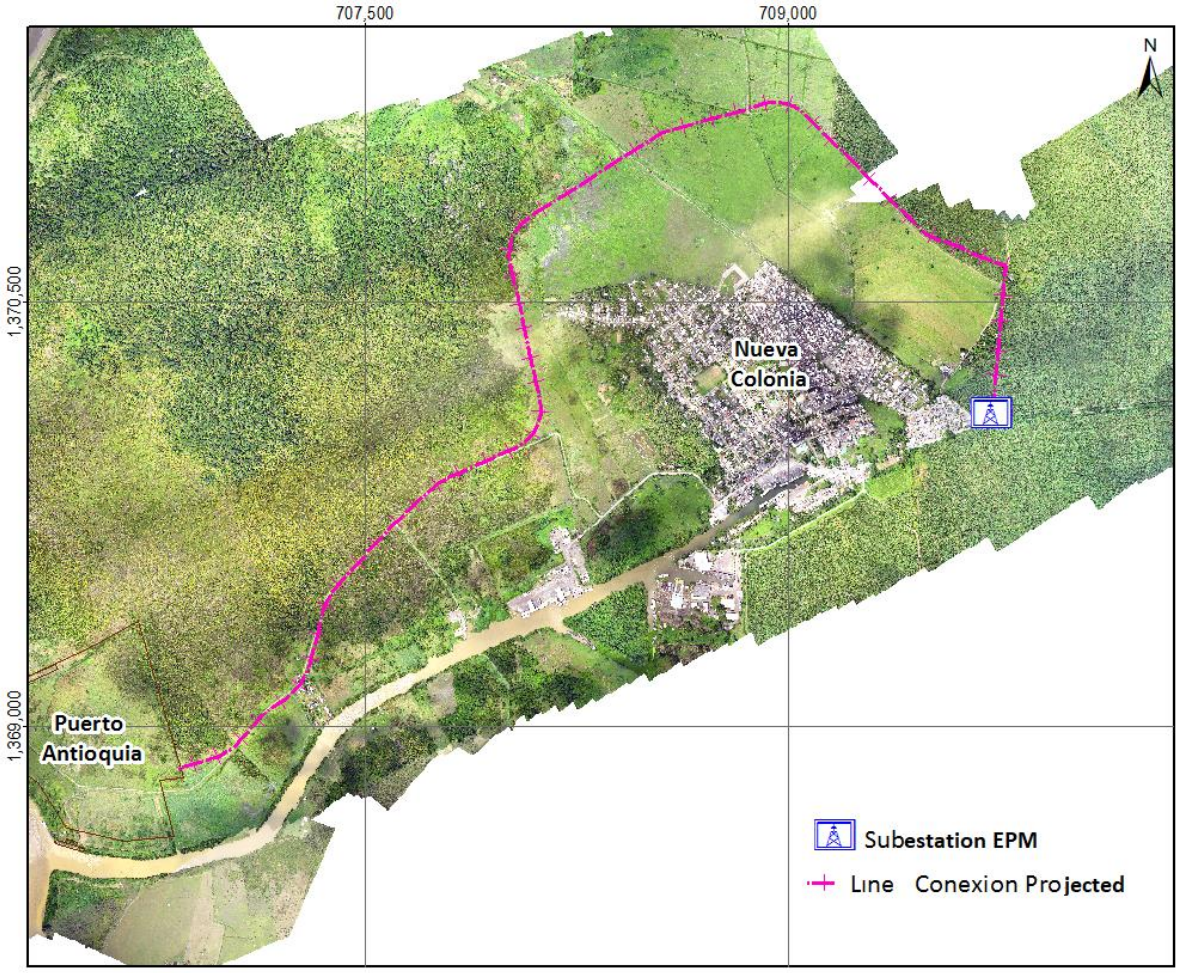

Figure 2.4 Electrical connection route

2.1.2.4 Workers camp

The construction of the port requires an area to install the workers and the administrative and construction facilities of the work. The camp may be located around the land area of the port. The receiver sensitive to the workers' camp is the community of Nueva Colonia, which is part of the area of influence of the project and on which the plans and management programs are presented in chapter 11 of the Environmental Impact Study. In addition, in the evaluation of the impacts of complementary information, the management plan for the camp is proposed.

2.1.3 Definition of areas of interest and sensitive receptors

Once the complementary activities have been defined and their location known, the sensitive receptors that could be affected by the execution of the complementary activities are defined.

The main communities susceptible to receive impacts during construction and operation are the community of Nueva Colonia and the community of Río Grande. The community of Nueva Colonia is part of the project from its licensed and authorized area of influence, so that the authorized management plans demanded by the competent environmental authority will be executed on this community, in this case the National Environmental Licenses Authority - ANLA. These plans are those present in chapter 11 of the Environmental Impact Study. The Rio Grande community, although not part of the area of influence of the licensed project, is defined as a potential sensitive receiver, since it is located on the road that will be used for transit during construction and future operation if it is not contemplate the two access alternatives for the operation.

In addition to these communities defined as sensitive receptors, the community of Puerto Girón is included, although it is not identified as a possible sensitive receptor because of the location in which the urban nucleus of the project area and auxiliary activities are located (Figure 2.5), is included in the analysis to determine the possible impact on it.

Figure 2.5 Location of communities defined for analysis as potential sensitive receptors

COMPLIANCE PLAN SOCIAL AND ENVIRONMENTAL PERFORMANCE STANDARDS

PUERTO ANTIOQUIA

DOCUMENT TITLE:	Complementary Characterization- Supplementary Material

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2 COMPLEMENTARY CHARACTERIZATION

2.2 INTRODUCTION

The objective of this complementary characterization is to present socioeconomic information of the communities located in the areas of interest related to the auxiliary infrastructure of the project, particularly the access roads for both the construction stage and the options evaluated for the operational stage, as well as the area of the electric transmission line.

2.1.1 Methodology

The following is a description of the methodological tools that allowed the collection of general information for the characterization of the socioeconomic conditions of the inhabitants of Riogrande as well as of the farms and packers that adjoin the alternative routes considered as transit routes of the project and / or the electric transmission line. The tools used were focused on obtaining primary information seeking to privilege the observation and direct contact with the community of interest, their perceptions and the associated infrastructure that would allow a closer reading of their reality, potential impacts to be generated with the project and the most viable alternatives to mitigate or correct said impacts.

Correction information sheet

With the objective of collecting general information from the corregimiento of Riogrande, a structured survey was applied by components that sought to investigate demographic, spatial / public-social, economic and political-organizational aspects, this form was applied to representatives of the Riogrande Community Council. (See Annex 1.2.3_ Complementary Characterization_Alternativa1_Fichas_Info-Primaria)

Family unit card

In addition to the file that was used to collect general information from the corregimiento, a family unit file was applied to each of the houses located on each side of the Riogrande - Nueva Colonia highway, as well as to the family units located in the communal area. Palos Blancos where alternatives 2 and 3 intersect as alternatives to the project's traffic routes.

This file was designed as well as the Riogrande file for the collection of demographic, economic information, public services and additionally information regarding the perception of the accident rates on the road, current effects of the truck traffic associated with the activity banana plantation and possible alternatives for its management. (See Annex 1.2.3_ Complementary Characterization_Alternativa1_Fichas_Info-Primaria)

Business Unit File

For the collection of information associated to the different commercial establishments that are along the road as well as the banana farms and packers, a commercial unit file was designed with the objective of collecting specific information associated with the economic activity carried out, number of employees, hectares allocated to the activity and associated infrastructure, among others.

2.1.1.1 Alternative 1 Vial Rio Grande_ New Colonia

2.1.1.1.1 Corregimiento de Riogrande

Riogrande is the center populated of one of the seventeen corregimientos of the Municipality of Turbo declared special port, logistics, industrial, tourist and commercial district through the law 1883 of 2018 of the Republic of Colombia.

In this corregimiento predominates population coming from different departments of Colombia as Bolívar, Córdoba, Choco and the Guajira besides inhabitants of different municipalities of Antioquia.

The dynamics and history of settlement of the village dates back to 1931 when the first inhabitants came from the department of Bolivar, these were settled in the areas now known as Micuro and the Commune of Palos Blancos, these communities were mainly engaged in fishing in the Riogrande River when it was still navigable, however during the 1940s this community was displaced by violence to what is now known as the center of Riogrande, there was "Padre Luis" who owned a farm 41.5 Ha and who gave space to the community to build their homes after forced displacement.

A second important milestone in the history of settlement of the corregimiento occurs in 1985 when the demand for labor from the banana producing farms attracted population from various departments such as Choco, Córdoba and La Guajira, at first the employees lived in the same farms but later for reasons associated with the violence and healthiness of the farms had to be located outside of them, it is then in 1992 the employees of the banana farms in the area and their families invaded the area near the road Rio Grande New Colony that had been built several years ago to mobilize the load of banana, banana workers there were divided lots of 6x12 or 72m2, this way the center of Riogrande and the neighborhoods San Luis and Trapiche are born, which are located in the margin of the way.

According to a community leader, since 2017 a group of community members who recognize themselves as an Afro-descendant community has been organizing. Currently, this group is in the process of becoming a Community Council of Black Communities. As indicated, since 2017 actions have been taken to obtain registration in the mayor's office of Turbo; a process that must be completed before undertaking a formal registration process and recognition in the Ministry of the Interior to formalize its constitution as an ethnic community. In this sense, it is highlighted that to date there is no formal certification that accredits them as a black community.

According to the last census of the DANE in 2005 the population of Riogrande was 8,500 people, including people from both the urban area and its four lanes, according to projections for the year 2018 would be approximately 11,500 people.

The most relevant demographic indicators show a fairly high rate of growth with an average of 190 births per year and an average of 7 annual deaths. Regarding population outflow, it seems to have not changed in the last five years while the arrival of population in the area has increased as the community refers to two particular phenomena; one the arrival of the Venezuelan population after the crisis of the neighboring country and the second one associated with the migration of inhabitants of San Juan de Urabá and Córdoba who arrive to be employed as labor of the banana producing farms.

- Public and social services

  - Aqueduct: Regarding public services Riogrande has 100% coverage in relation to the aqueduct service (potable water), this service is provided by the Optima S.A Company and has an average monthly cost of between $ 22,000 and $ 30,000.

  - Sewerage: It also has sewer service with an approximate coverage of 75%, however the associated infrastructure is newly built and still has some failures as it has not yet been assumed by any management company that provides adequate maintenance.

In the San Luis neighborhood, for example, there are still 600mts of open sewers, which has become a source of contamination and diseases for the community, for which they have requested the municipal administration to finish the works.

The disposal of the wastewater of the village is done through dumping to bodies of water, according to the community, both domestic sewage water and the drains of the banana washing tanks of the farms are dumped into the Rio Grande River.

- Collection of solid waste: The collection of solid waste is carried out by the company Futuraseo with a frequency of twice a week (Tuesday and Friday). The perception in terms of the quality of this service is regular because the poor condition of the internal roads of the corregimiento, the collector car cannot reach all areas, which is why there are some polluting sites.

- Energy: For the energy service, there is a 100% coverage, the company that provides the service is EPM and the average monthly cost ranges between $ 50,000 and $ 100,000, in

terms of the perception of the quality of the service, it is good however the community says that the costs are very high.

- Natural gas: In addition to the public services described Rio Grande has a natural gas network, this service is provided by the EPM company and has an approximate coverage of 90%.

- Social services

  - Education: In Riogrande the "Riogrande Educational Institution" is located, which has four locations along the corregimiento, these are; Headquarters or Integrated Headquarters located in the center of the corregimiento, preschool headquarters, San Luis headquarters located in the neighborhood with the same name and finally located in the town of Aguas Frias, then Table 2.1 shows the coverage educational (View Photography 2.1)

Table 2.1 Educational coverage Educational institution Riogrande

Teachers I.E Riogrande		**I.E Riogrande students**	
Total number of preschool teachers	4	Total number of preschool students	93
Total number of primary teachers	21	Total number of primary students	665
Total number of secondary teachers	17	Total number of secondary students	461
Total number of teachers	6	Total number of students	89
Total teachers	**48**	**Total students**	**1.308**

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Photography 2.1 Riogrande Educational Institution

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Health: The corregimiento has a health post that provides general medical consultation service one day a week, this establishment provides service for people with subsidized health care, during the day of service 30 niches are delivered for the care of the community, the health post does not have adequate infrastructure for the provision of other health services and is attended by a general practitioner and an auxiliary nurse. (View Photography 2.2)

The 70% of the population is in the subsidized regime while the remaining 30% is part of the contributory regime, it is important to clarify that there is a percentage of informal employees who do not belong to the contributory regime.

Photography 2.2 Health post Riogrande

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Recreational and sports infrastructure: Riogrande only has a soccer field and a sports court as an associated sports infrastructure, however they are not in good condition and do not have the necessary equipment. (See Photography 2.3)

Sport court

Soccer field

Photography 2.3 Sports Infrastructure

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Recreational and social infrastructure: Regarding the social infrastructure, as shown in **¡Error! No se encuentra el origen de la referencia.** the corregimiento has a school restaurant in good condition, a community home, a gallera where most of the working men meet afterwards. Of the days of work in the banana plantations, a cemetery and nine churches among which a Catholic is counted and the remaining eight are classified between Presbyterian, Adventist and Pentecostal. It is noted that the corregimiento does not have a police station, in cases where the community is required to the police station located in the neighboring village of Currulao, there is no communal hall so the meetings of the JAC or the Community Council are carried out in the houses. (See Photography 2.4)

Tabla 2.2 Social Infraestructure Riogrande

Aspect	#	state			Endowment			Used	
		Good	Regular	Bad	enough	Regular	Insufficient	Yes	No
a. Kiosk or stand	0								
b. Communal living	0								
c. School restaurant	1	X			X			X	
d. Community home	1	X			X			X	
e. Church	9	X			X			X	
f. Food storage	0								
g. Cemetery	1		X			X		X	
h. Police station	0								
i. Gallery	1	X			X			X	

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Cementery

Gallery

Church

Church

Photography 2.4 Recreational and social infrastructure

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Housing: The majority of dwellings in the corregimiento of Riogrande have a concrete structure where the walls are built in adobe-block, with cement floor and roof in eternit, a low percentage is built in wood with floor on the ground and tiles in zinc. (See Photography 2.5)

The predominant property state is that of own housing, the majority under the figure of sale.

Photography 2.5 Households Riogrande

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Transportation: The means of transport used are the bus routes of the banana plantations that are used for the transportation of the employees of the same and the routes of inter-municipal buses that go to Apartadó or Turbo, followed by the own transport by motorbike or bicycle.

The cost of public transport of inter-municipal routes is $ 2,500 on the route from Riogrande to Apartadó, $ 4,000 from Riogrande to Turbo and $ 2,000 from Riogrande to Nueva Colonia, the transit frequency of the routes is approximately 15 minutes.

The status of the internal roads of the corregimiento is regular because they are not paved, which makes it difficult for vehicles such as buses and / or food trucks, among others.

- Economic aspects

According to the information reported, at present the community does not carry out fishing activities or agriculture because the properties are very small and there are no extensions of land that allow the development of any agricultural activity, the main economic activity of the The population is associated to the agricultural activity of the banana production in the diverse farms of the sector and the informal sales associated with the sale of food, motorcycle workshops and the sale of beverages in the village. (See Annex 1.2.3_ Complementary Characterization_Alternativa1_Fichas_Info-Primaria)

Nex, in Table 2.3 it can be observed the number of commercial establishments in Riogrande that employ a small percentage of the population's labor force.

Table 2.3 Commercial establishments Riogrande

Type of business	# of business
Expenditures of food (shops, cafes, bakery, barns, markets, vegetables, butchers)	19
Expendium of drinks (taverns, canteens, liquor stores, bars, billiards)	11
Hotels, residences, famihoteles, hostels	0
Provision of services (public, banking entities)	2
Warehouses and varieties	3
Communications (internet rooms, telephone booths, fax)	6
Motorcycle workshops	3

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

The average population linked to agricultural activities on banana farms is 80%, of this 80% 50% is formally linked and the rest works under a category known as "piecework" where the amount paid to the employee it depends on the production achieved or the work done. The salary of a banana employee ranges between 1 and two Minimum Legal Salaries in Effect - SMLV.

In the corregimiento is a productive company of the primary sector that is dedicated to the production of wooden pallets.

- Organizational political aspects

Regarding the political and organizational aspect, the corregimiento of Riogrande has a strong organization focused on the resolution of internal conflicts and the strengthening of the community in general and the youth population. Community participation seems important insofar as they have different committees and citizens vigilance in which the community participates widely.

The community organizations present in the area are the Riogrande Community Action Board, the San Luis Community Action Board and the Community Council of Black Communities of Riogrande, which is in the process of constitution and recognition.

Additionally, there is a sports committee that is responsible for scheduling the various activities of the corregimiento such as soccer tournaments or the May Day match.

There is a conciliation committee that is led by the Community Action Boards, this committee is responsible for mediating and finding a solution to the different conflicts that may arise among the inhabitants of the corregimiento.

Two citizen oversight offices have also been established; citizen oversight for the sewerage that emerges to monitor particularly everything related to recent works of the sewerage and citizen oversight of social control that seeks to monitor the municipality about the investment intended and invested in the corregimiento.

2.1.1.1.2 Housing located on the side of the road

It is important to remember that the road will not undergo modifications as soon as it is extended during the construction phase, so today the houses that are inside the easement will not suffer any type of relocation.

Below is specific information on the homes located on either side of the Riogrande - Nueva Colonia road, for which it was sought to deepen in some aspects taking into account that it is the community most likely to be affected by some impact during the stage constructive and

operative of the project related to the transit of cargo trucks. Information is then presented of the family units as well as of the commercial establishments, banana producing and packing farms.

As evidenced in Figure 2.1 the population located in the town center of Riogrande next to the road is self-recognized mostly as Afro-descendants, however there is also a high percentage of people who self-recognize as peasants and lastly that do not self-recognize in any of the categories mentioned.

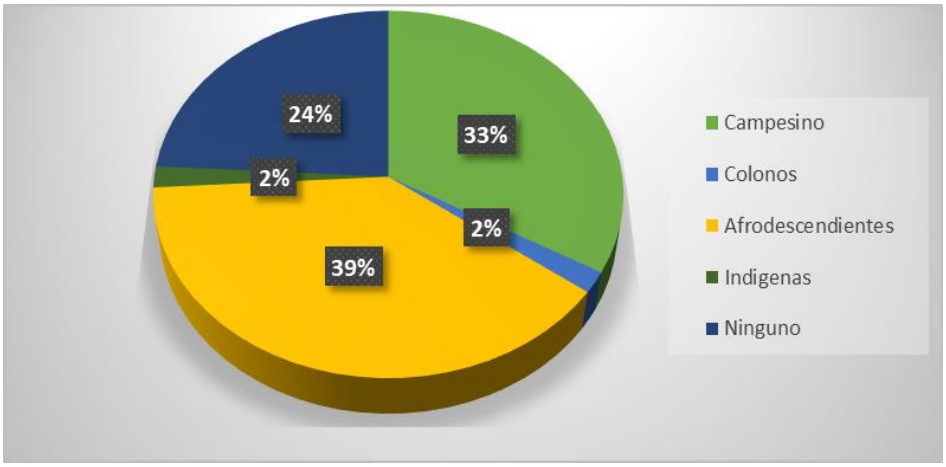


Figure 2.1 Self-recognition Population groups Riogrande, "Campesino" and "Colonos (41% Afro-Colombian / indigenous and 59% mestizo)

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

The reasons associated with his residence are related to work in 34%, forced displacement in 26% related to situations of public order, family ties in 19%, place of birth in 17%, last study and others in a percentage of 2% each. As can be seen, the values coincide with the population dynamics described for the corregimiento in general, where the majority of the inhabitants had arrived for work reasons and others for forced displacement. It should be noted that the process of settlement through invasion in the contiguous line the road was given in 1992 when it was already several decades old, that is to say that the settlement occurred after the construction of the road and having it as the axis of settlement for the community.

- Demographic aspects

Along the road there are fifty-six (56) dwellings and twenty-eight (28) commercial units among diverse businesses and banana farms and packers (this information will be expanded later in the

section on economic aspects), there is an average of four (4) people per household, although there are also households with large families and a larger population that resides alone to a lesser extent.

As can be seen Figure 2.2 in the homes located on either side of the road there is a high percentage of young people between ten (10) and fifteen (15) years old, as well as a population over sixty (60) years old and children between zero (0) and the nine (9) years respectively, which implies a high degree of economic dependence, in turn a gap can be observed in the ages of thirty (30) to (34) that could be associated with the violence that flared up end of the 90s and early 2000 and that affected mainly the young population of that time.

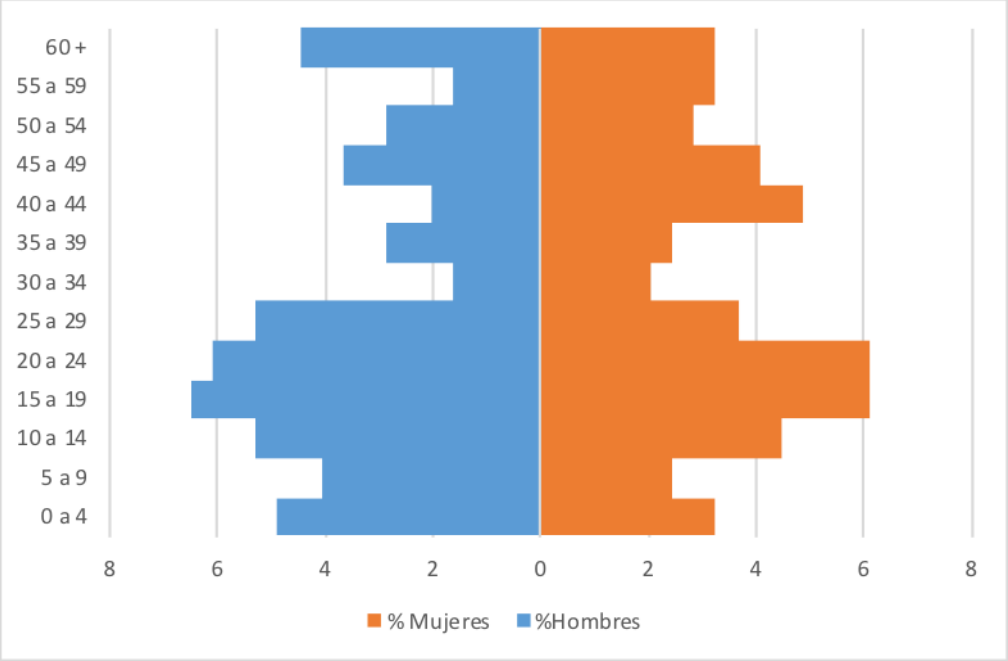


Figure 2.2 Population pyramid family units on either side of the road in Riogrande-Nueva Colonia

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

During the last year there has been a low percentage of arrival of displaced population to the surveyed households, of the total 56 only 6 reported having received displaced population in their home in the last year, this one coming from neighboring districts like Nueva Colonia and the communal of white sticks, there are also a couple of cases of population from Venezuela.

- Public services

- Aqueduct: as seen in Figure 2.3 94% of the houses refer to an aqueduct service, the remaining 6% has a deep water well, it should be noted that of the three houses that refer to having a septic tank instead of an aqueduct, two are located outside the town center of Riogrande and are closer to the corregimiento of Nueva Colonia in the case of two house farms located on the left side of the road. The monthly cost paid for the provision of the service ranges between $ 22,000 and $ 30,000.

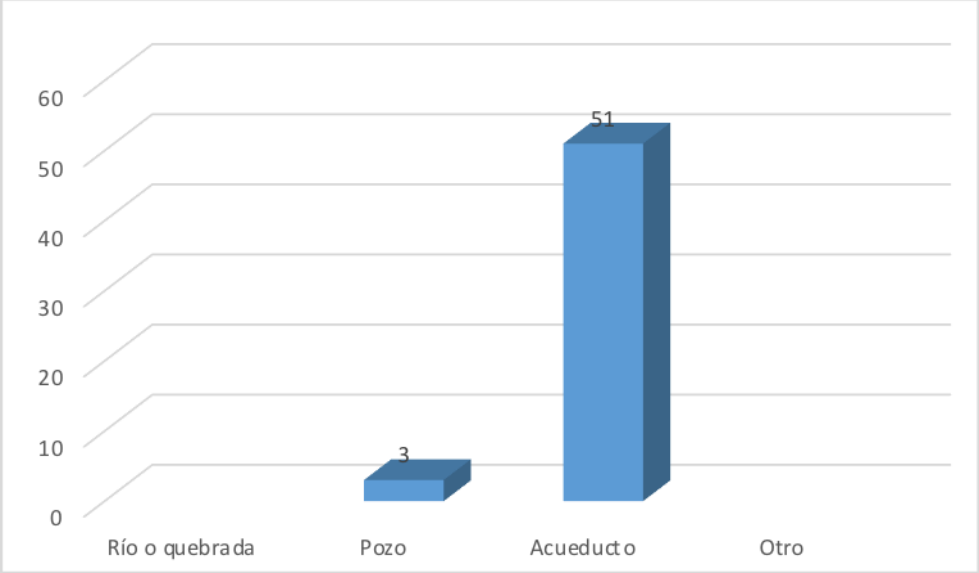


Figure 2.3 Aqueduct service coverage

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Sewerage: sewerage coverage on the other hand is 91% for the surveyed households, the remaining 9% are divided between dumping to bodies of water (two houses), septic tank (two houses) and land (one house).

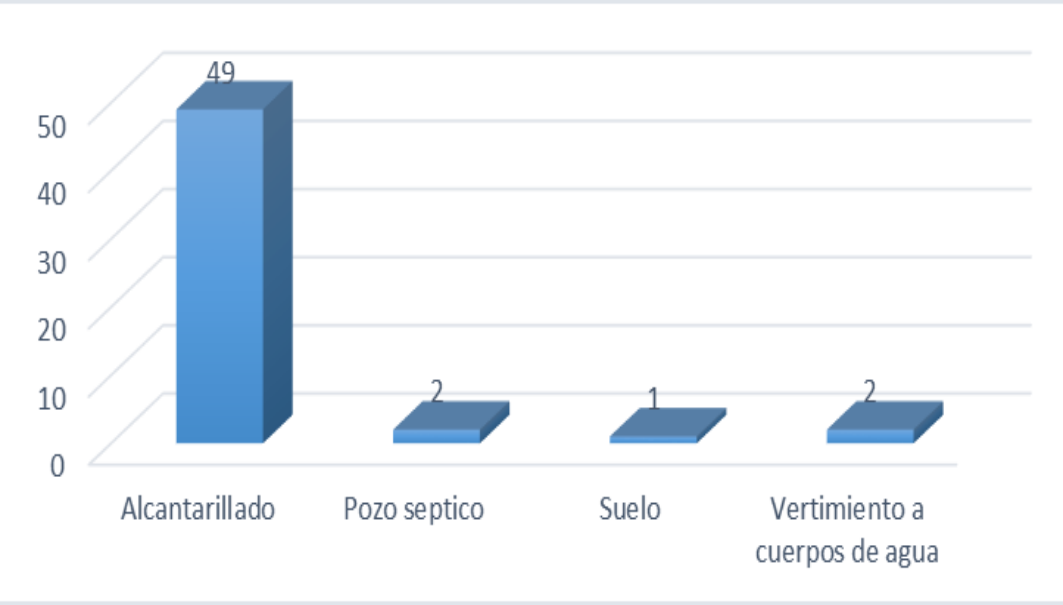


Figure 2.4 Sewer service coverage

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Electricity: electricity coverage is 100% and most people have a good perception of the service, however they point out that the cost paid for the service is high, on average families are paying between $ 50,000 and $ 100,000 per month.

- Method used for cooking: natural gas coverage for the surveyed households is 72%, the remaining 28% still does not have the service and uses to cook pipette gas.

- Outstanding social aspects

- Level of schooling: The levels of education found indicate that 42% of the surveyed population finished high school while 31% just finished the first, in relation to the average,

technical and university training, only 13% attended while the rest 14% say they have not attended any level of education or just the preschool.

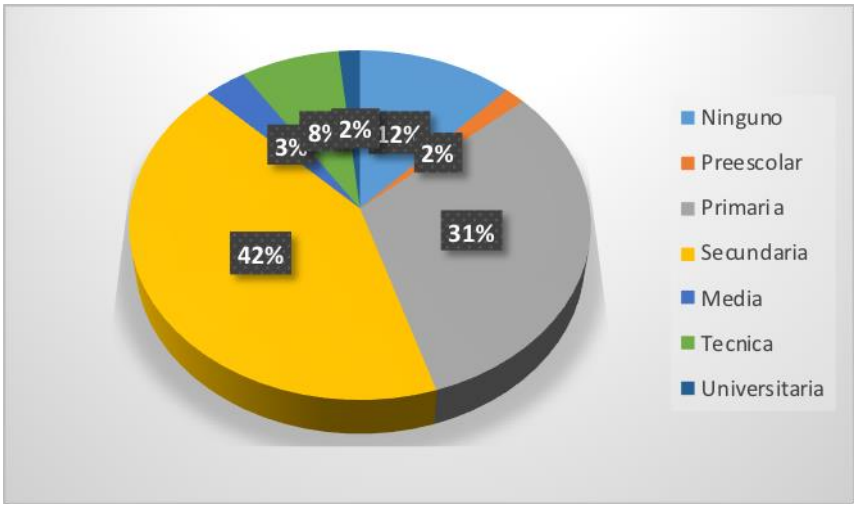


Figure 2.5 Levels of schooling

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Health regime: Most people surveyed belong to the contributory regime, one of the phenomena to highlight is that in the same family unit members can belong to different health regimes, this is associated to the fact that belonging to the subsidized regime for example in the case of older adults it means access to various programs and social assistance.

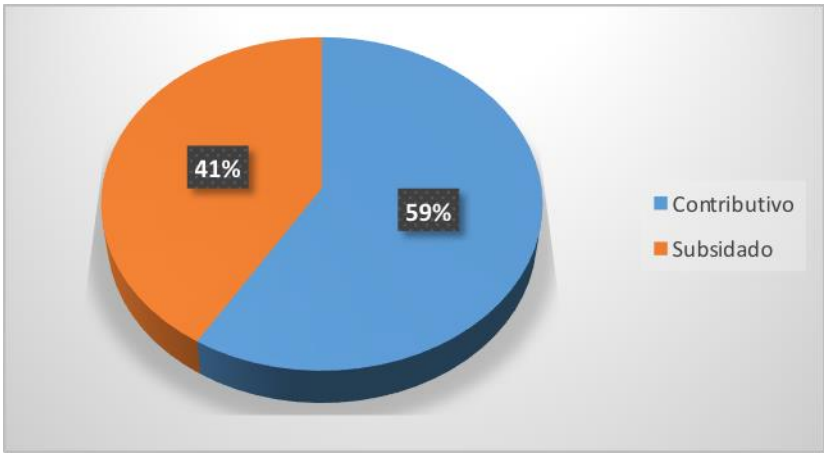
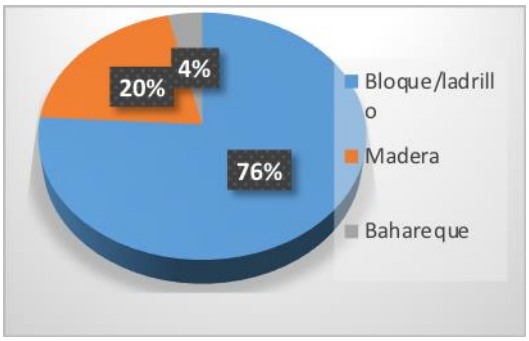


Figure 2.6 Health regime

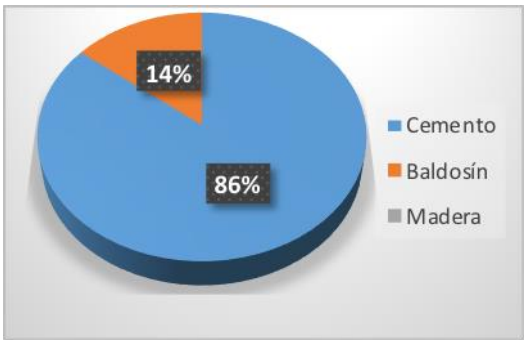
Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Housing Aspects

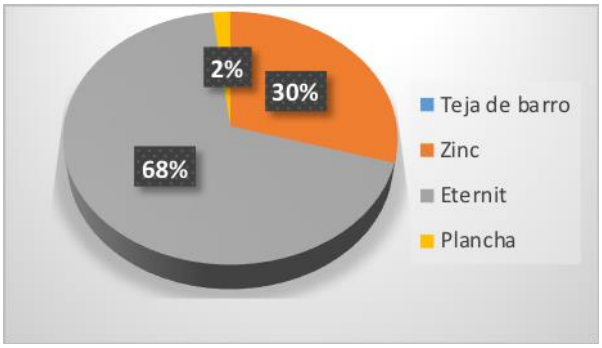
  - Housing materials: the majority of homes located on either side of the road are built in materials such as adobe and block, cement floor and eternit tiles, then the figure shows the percentages of materials. (See Annex 1.2.3_ Complementary Characterization_Alternativa1_Fichas_Info-Primaria).



Wall materials



Floor materials



Ceiling materials

Figure 2.7 Housing Materials

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

  - Possesion of the dwelling: the percentage of own homes found is 74%, 22% corresponds to rented dwellings, the remaining 4% is divided into 2% of occupied dwellings and 2% of dwellings that are occupied as caregivers of the property, these last cases correspond to farms located outside the town center of Riogrande along the road.

-Distance from homes to the road: For the purposes of assessing the impacts that were raised, the distance to which the houses on the Riogrande - Nueva Colonia road are located was recorded, as can be seen in the majority of dwellings located between one and five meters away (ver Figure 2.8) , the distance is less at the beginning of the road

and it is possible to move a little in the course of the same, the first houses have distance of a meter even of a meter which represents high risks in relation to the traffic of the vehicles of load that today circulate and the people who live in these houses (See Photography 2.6)

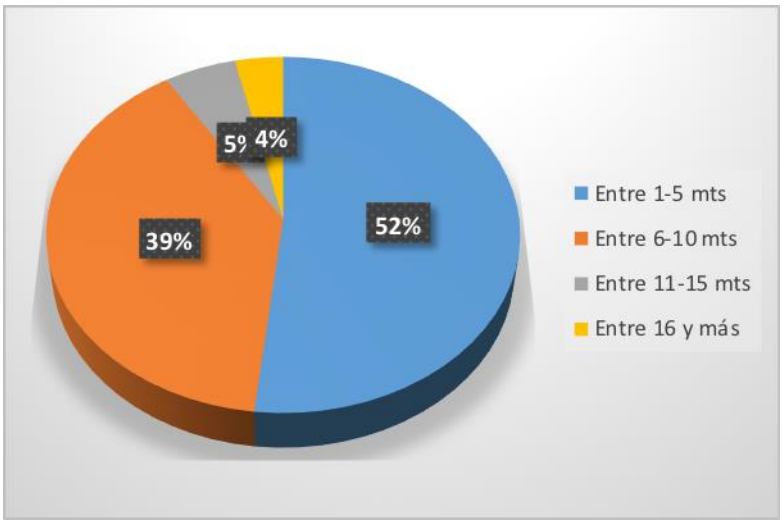


Figure 2.8 Distance from homes to the main road

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Photography 2.6 Houses on board of track

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

- Transport: Regarding transport, most of the houses on the edge of the road use public transport, that is to say, the inter-municipal routes that go to Nueva Colonia, Turbo and Apartadó, although at the corregimiento one of the most used means are the motorcycle and the bicycle, the houses near the road use public transport. It should be noted that the employees of the banana sector have special routes that move them to the farms and back to their home, the nearby farms have routes to Riogrande, Nueva Colonia and Apartadó, which is where most of their labor resides.

- Economic aspects

As indicated above, the main source of employment of the inhabitants of Riogrande is the agricultural activity associated with banana production, these jobs are usually formal, however there are also those who work part time, which is, they are paid for the work they do and not for the time worked, the salary accrued ranges between one and two minimum legal salaries in force-SMLV.

Another source of outstanding employment refers to informal jobs in commercial establishments located in the same district. Then, in Table 2.4 the most relevant data are presented, associated to the commercial establishments and farms and packers, located along the road, Rio Grande - Nueva Colonia. (See Photography 2.7)

Table 2.4 Commercial units located along the route Riogrande - Nueva Colonia

No.	Comercial Unit	Infraestructure	# of Employees	Size property	Road Proximity
1	Restaurant	Bathrooms, kitchen	3	7 x 24.47 mts	1 mt
2	Grocery store, spare parts, bakery, gas, workshop rims tires	Two-level house	5	16.20 x 29mts	2.50 mts
3	Pharmacy	first floor, bathroom, kitchen, living room	3	4x3 mts	3.87 mts
4	Mechanical workshop	Room	1	8 x 15 mts	2 mts
5	Church	Room	1	12 x 24 mts	2.57 mts
6	Church	bathroom, kitchen, living room	0	18 x 36 mts	2.80 mts
7	Pallet Factory	Pallet production rooms	8	150 x 60 mts	2.10 mts
8	Motorcycle wash	Ceiling	1	7 x 5 mts	5.36 mts
9	Bar	Bathrooms, living room	3	12 x 13 mts	3.86 mts
10	Pool tables	lounge, pool tables, bathrooms	2	6 x 12 mts	5.88 mts

No.	Comercial Unit	Infraestructure	# of Employees	Size property	Road Proximity
11	Bakery	bathroom, kitchen, living room	1	128 m2	17 mts
12	Joinery	Bathrooms, living room	2	11 x 6.50 mts	16 mts
13	Barbershop	Bathrooms, living room	1	6 x 3 mts	3.42 mts
14	Cafeteria	Room	1	4 x 5 mts	3.50 mts
15	Farm 1.a	Inactive Pallet production	1		7 mts
16	Farm 1.b		105	50 Ha	3 mts
17	Marketer 1.c	Office, bathroom, compost, treatment plant, housin	10	1.6 Ha	10.50 mts
18	Marketer 1.d	bathrooms, cellars	17	2 Ha	7.30 mts
19	Farm 1.e	Baler, offices, warehouses, dressing rooms and bathrooms, casino, warehouse	110	1.2 Ha construida	8 mts
20	Farm 1.f		35	1.50 Ha construida	10 mts
21	Farm 1.g		110	168 Ha	9 mts
22	Farm 1.h		25	33.36 Ha	8 mts
23	Farm 1.i		24	25 Ha	10 mts
24	Farm 1.j		12	15 Ha	8 mts
25	Farm 1.k		80	135.7 Ha	7.70 mts
26	Farm 1.l		102	160.52 Ha	10 mts
27	Farm 1.m		90	159 Ha	100 mts
28	Farm 1.n		32	43 Ha	9 mts

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Pharmacy


Babershop

Compost pen

Banana Farm

Photography 2.7 Business establishments

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

65% of the people who inhabit the road perceive that the accident rates in it are high, this perception was more widespread at the beginning of the road, because that is where the community refers that most cases of accidents, once the road is progressing the most frequent perception is that the levels of accidents on the road are medium, this perception reaches 30% and finally 5% of the inhabitants consider that the levels of accidents are low. (See Figure 2.9)

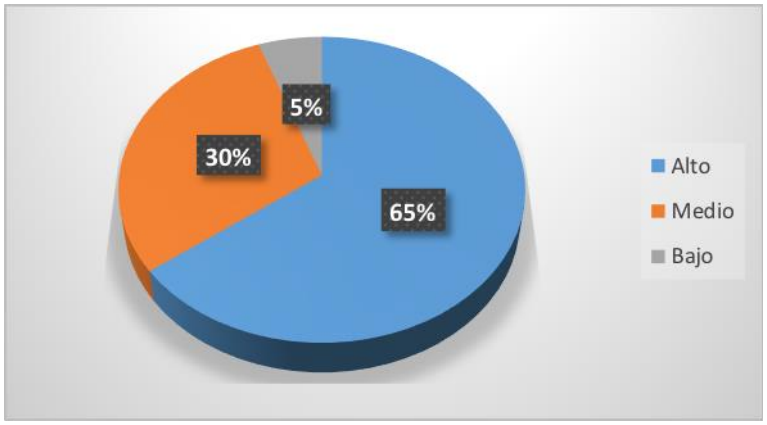


Figure 2.9 Perception of accident rates on the Riogrande-Nueva Colonia road

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

In addition to the perception that the community has of accident rates, Turbo's transport secretary in the "Turbo Road Mobility Strategic Plan" points out that in fact the critical points or those that present risks of accidents at rural level are located in the via Turbo-Tres-Nueva Colonia.

Figure 2.10 Turbo-Tres-Nueva Colonia Road

Source: Google maps, 20018

It is highlighted that when asking the population about whether any of their family members had suffered any type of accident on the road, 69% answered affirmatively. In addition to investigating the events, motorcycle accidents were recurring most people surveyed do not have this means of transport themselves if they move on a motorcycle eventually.

Regarding the main causes of road accidents, all respondents agree that the road is narrow and not in good condition in some sections (See Annex 1.2.3_ Complementary Characterization_Alternativa1_Fichas_Info-Primaria), as there are constant gaps throughout of the same, also that the road does not have lighting and finally the imprudence of the drivers. Taking into account the causes of accidents identified by the population, the measures that can be implemented to reduce accident rates are focused on the expansion, maintenance and lighting of the road, and the awareness and awareness of drivers on road safety issues.

Photography 2.8 Current status of the track

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

2.1.1.2 Alternative 2 variant Apartadó_ Comunal Palos Blancos_ Nueva Colonia

The area in which the alternative road is planned is known as the Comunal Palos Blancos, close to the hamlets of El Diamante, San Pablo and Punto Rojo in the corregimiento of Puerto Girón.

It should be noted that Comunal Palos Blancos is currently an area made up of a set of banana producing and baler farms and associated structures and not the place of settlement of any specific community (See Photography 2.9). As initially stated, the population previously settled in this area gave rise to the center of Rio Grande, after being displaced by violence in the 1940s.

Photography 2.9 Palos Blancos Overview

Source: Aqua&Terra Consultores Asociados S.A.S., 2018

Today, the Comunal Palos Blancos concentrates several farms which are accessed by the road bearing the same name, which would be included in the suggested route for alternative 2 that will be characterized below (See Photography 2.10).

Photography 2.10 Acces to Palos Blancos road

Source: Aqua&Terra Consultores Asociados S.A.S., 2018

For the characterization of alternative 2, the farms and packers farms were identified along the route, as can be seen in the Figure 2.11.

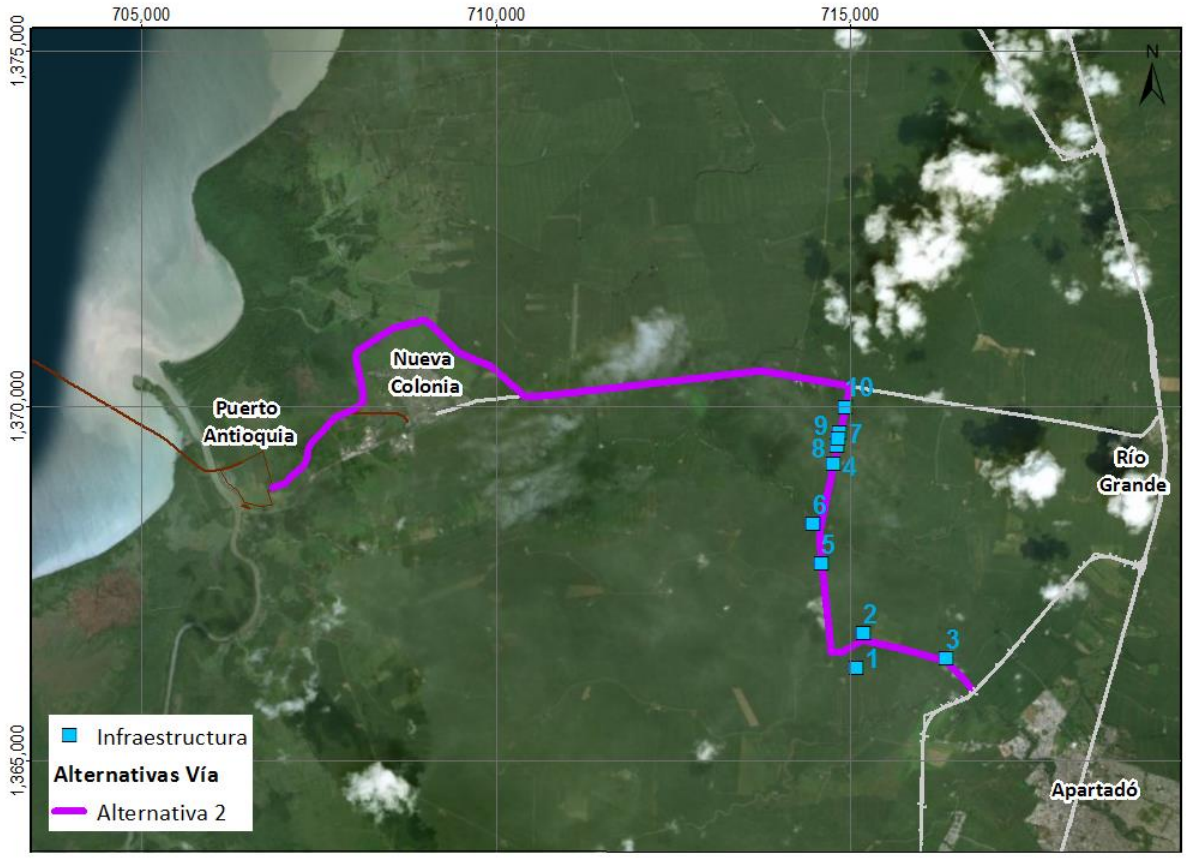


Figure 2.11 Identified infrastructure near the track layout of alternative 2
Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Overall, ten properties were identified (See Table 2.5), of which eight have a use associated to the agroindustrial activity, where the typical infrastructure of the banana producing farm is registered; in the other two, this productive activity is carried out on a smaller scale, under the figure of private farms with artisanal balers and residential use.

Table 2.5 Properties and infrastructure adjacent to alternative 2

No.	Commercial Unit and / or housing	Infrastructure	# of employees	Property size	Proximity to the projected path
1	Farm 2.a	Baler, offices, warehouses, dressing rooms and bathrooms, casino, sandpit, cable way, warehouse	78	103.5 Ha	187 mts
2	Farm 2.b		_	_	41 mts
3	Farm 2.c		84	119 Ha	107 mts
4	Farm 2.d		100	122.22 Ha	71 mts
5	Farm 2.e		87	118 Ha	20,7 mts

No.	Commercial Unit and / or housing	Infrastructure	# of employees	Property size	Proximity to the projected path
6	Farm 2.f		90	159 Ha	104 mts
7	Farm 2.g	Banana packer	21	14.2 Ha	20 mts
8	Farm 2.h	Housing, small baler with tanks, dumper	2	7.2 Ha	15 mts
9	Farm 2.i	Wood dwelling, artisan packing	2	5.5 Ha	23 mts
10	Farm 2.j		_	_	10 mts

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

However, at the date of the visit made to the identified the properties near the track layout of alternative 2, the house located on the farm 2.i is reported to be uninhabited. The owners, state that, in effect, the house is not being used, however, he states that he aspires to apply improvements to be able to rent it at some time.

The banana producing farms are divided into two zones, one is the banana growing area and the second is the packing area where all the infrastructure associated with the processing and packing of the same is found, such as bins, cleaning tanks, warehouses, and clothing for employees, bathrooms, administrative offices, warehouse, casino or restaurant, among others. All the infrastructures are made in block or brick, with floor in cement and tiles in eternit or PVC.

The banana farms contract the transport service for their employees that are located in the townships of Riogrande and Nueva Colonia or in the municipality of Apartadó, therefore the routes are directed from the farms to the mentioned destinations.

The farm 2.h has a house in material with adobe walls, cement floor and eternit tiles, and has an area that is being suitable as an artisanal baler.

The property is a family plot where apple and banana are grown and where the owner and an employee live. Both people have their own motorbike as a means of transport.

As mentioned above, the farm 2.i has a house in wood structure, cement floor and zinc roof. Currently the house is not inhabited and they are adapting an area that will be used as an artisanal packing house, however in the farm apple, popocho and banana are cultivated.

In terms of coverage and quality of public services, 100% of surveyed units have no connection to aqueduct and obtain water from deep wells. They also do not have sewerage service and they

handle sewage through septic tanks. In terms of energy, the coverage is 100% and the quality of the service is perceived as good. Neither is there currently a natural gas network, so the medium used for cooking is pipette gas.

All identified properties have legal deeds.

The Riogrande-Nueva Colonia road is used to enter the farms previously mentioned. Then the access must be through the Palos Blancos road. The latter is an unpaved road, which makes access difficult during the winter season. However accident rates are low and traffic is fluid. This is the route used by both the cargo trucks that transport the banana and the public transport buses that provide service to the corregimiento of Puerto Girón. In the section of the road that is proposed to be used in alternative 2, there are six bridges that pass over the living water channels of the area and the Rio Grande river (See Photography 2.11). The width of the track is 6.50 meters.

Bridge over the river Riogrande

Live water canal bridge

State of the route Palos Blancos

Photography 2.11 State of the route Palos Blancos

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

2.1.1.3 Alternative 3 Variant Apartadó_ Nueva Colonia

The third alternative contemplates the construction of a road from the Apartadó variant to Nueva Colonia, crossing a section of the Palos Blancos highway and some properties located in the Nueva Colonia (Turbo), Apartadó and Palos Blancos communes jurisdiction. In Figure 2.12 you can see the layout of the road and the identified infrastructure.

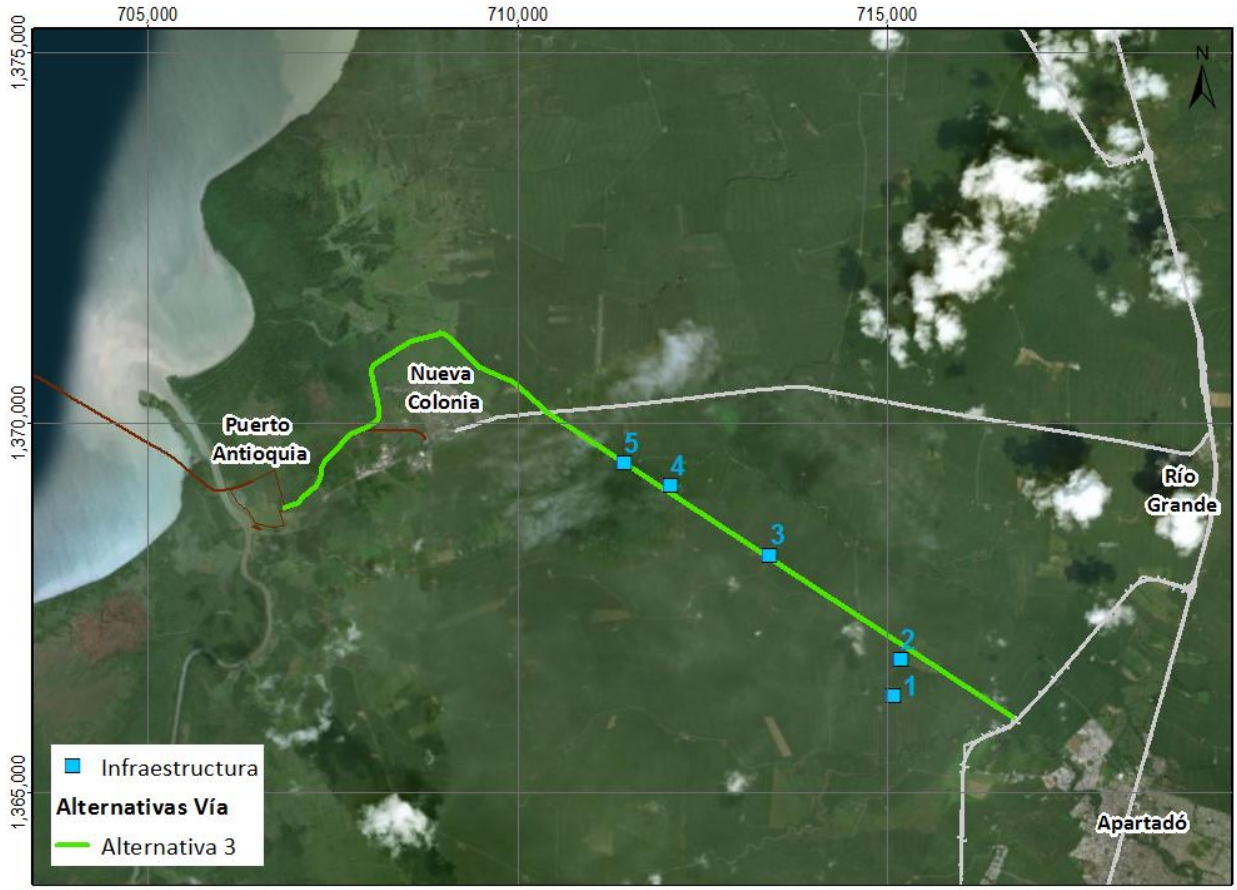


Figure 2.12 Infrastructure identified close to the track layout of alternative 3
Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Next in Table 2.6 we can observe the general data of the identified infrastructure. It is worth noting that the proximity to the projected road is measured with respect to the location of the baler farms, taking into account that they represent the physical infrastructure susceptible to present any affectation related to the construction of the road.

Table 2.6 Buildings and infrastructure near the route of the road contemplated in alternative 3

No.	Commercial Unit and / or Family Unit	Infrastructure	# of employees or residents	Property size	Proximity to the line
1	Farm 3.a	Baler, offices, warehouses, dressing rooms and bathrooms, casino, sandpit, cable track, warehouse	78	103.5 Ha	542 mts
2	Farm 3.b				88 mts
3	Farm 3.c		58	74.63 Ha	118 nts
4	Farm 3.d		152	172 Ha	165 mts
5	Farm 3.e				170 mts

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

The farms identified are all banana producers and present the general infrastructure associated with the processing and packaging of the same.

Transportation buses farm employees

Farms offices

Cantine

Baler Farm

Photography 2.12 Infrastructure Warehouse farms

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

All identified properties are owned and have legal deeds.

In terms of public service coverage, only one of the farms (Farm 3.c) has an aqueduct service, the rest are supplied through deep wells. The sewage is handled through septic tanks, the energy coverage is 100% and the method used to cook is gas pipette because they do not have a connection to natural gas.

The entrance to the farms 3.a, 3.b and 3.c is through the Comunal Palos Blancos, which as mentioned above is an unpaved road used for the transit of cargo trucks of the communal and inhabitants of the different paths of the corregimiento of Puerto Girón. (See Photography 2.11)

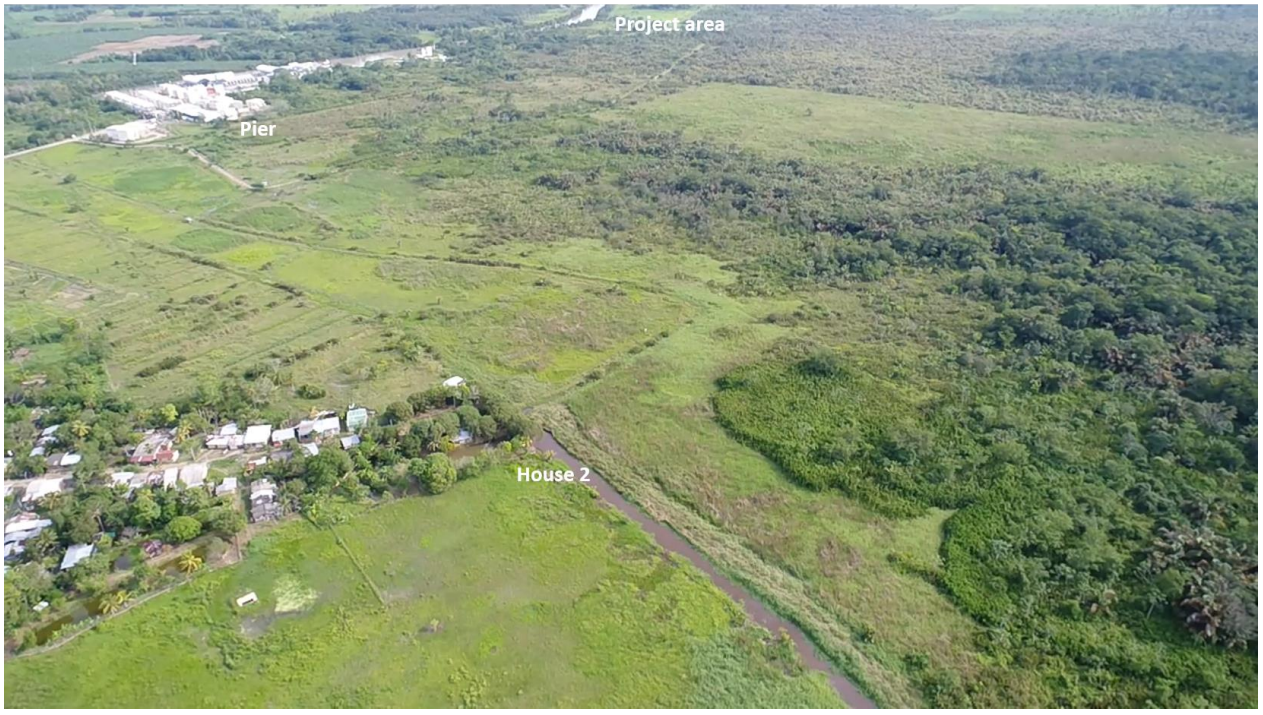
The entrance to the farms 3.d y 3.e is through a private access that connects with the Riogrande-Nueva Colonia road.

2.1.1.4 Interconnection Project (electric transmission line) Nueva Colonia

The interconnection project for the electric transmission line will be made from the substation of Nueva Colonia owned by EPM, for which the entire process of environmental licensing and the relevant negotiation of the properties will be carried out, as it crosses several properties located in the jurisdiction of the corregimiento of Nueva Colonia, as shown in Figura 2.13 and the Photography 2.13.

Much of the land corresponds to banana plantations and muddy terrain, the only identified infrastructure close to the projected route of the transmission line corresponds to a producer farm 4.a and two houses.

Figura 2.13 Identified infrastructure near the layout of the electric transmission line
Source: Aqua & Terra Consultores Asociados S.A.S., 2018



Photography 2.13 Aerial view of lots associated with the electric transmission line

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

As can be seen Table 2.1 the Monica farm has an area of 160 Ha, of which 0.92 Ha correspond to the packing area that has the general infrastructure associated with it (see Photography 2.14), has 105 employees.

Table 2.1 Lots and infrastructure near the projected route electric transmission line

No.	Commercial Unit and / or Family Unit	Infrastructure	# of employees or residents	Property size	Proximity to the line
1	Farm 4.a	Baler, offices, warehouses, dressing rooms and bathrooms, casino, sandpit, cable way, warehouse	105	160 Ha	190 mts
2	House 1	Housing in adobe, patio, solar with fruit trees and banana	6	0.80 Ha	44,5 mts
3	House 2	Wooden house	9	6.000 m2	131 mts

Photography 2.14 Infrastructure Finca Empacadora La Mónica

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Housing 1 belongs to the neighborhood 19 de Marzo and is inhabited by four women and two men, the size of the property is 0.80 Ha in which there are planted mango and banana. The house is built with brick walls, floor in cement and earth, and roof in eternit.


Photography 2.15 House 1 barrio 19 de Marzo

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

The housing 2 is located in the El Tunel neighborhood and is inhabited by two family nuclei totaling nine people (three women and six men), the house is own and the size of the property is 0.60 Ha, the house is built in wood, ground floor and roof in zinc.


Photography 2.16 House 2 barrio El Túnel

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

As for the coverage of public services, both the farm and the two houses have an aqueduct service. Regarding wastewater management, both the farm and Housing 1 have a septic tank, while housing 2 drains water bodies, the electricity service coverage is 100%, and the method used to cook in the three cases is pipette gas.

The roads close to the identified infrastructure are unpaved streets like most of the internal streets of the corregimiento of Nueva Colonia.

Note: it is clarified that the route of the line contemplates a selected bypass taking into account the non-impact of the population and infrastructure of the properties and Nueva Colonia. The infrastructure present in the properties described in Table 1.7 will not be affected by the construction and operation of the line. Likewise, it is reported that the environmental impact study regarding the Nueva Colonia - Puerto Antioquia electric transmission line is underway which will define the potential impacts that these properties might suffer, as well as the management plans designed for the correct operation of the Project.

The area requirement, be it for easement or acquisition of the properties, will be defined once the property management, design and final studies for the transmission line are carried out.

COMPLIANCE PLAN OF SOCIAL AND ENVIRONMENTAL PERFORMANCE STANDARDS - PUERTO ANTIOQUIA

DOCUMENT TITLE:	Artisanal Fishing Characterization

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2 ARTISANAL FISHING CHARACTERIZATION

2.2 METHODOLOGY

The methodological approach used to collect the information about the artisanal fishing activity that takes place in the marine area where the port project will be installed is described below. The understanding of the artisanal fishing activity requires a comprehensive look and the use different techniques (quantitative and qualitative) to address the complexity of this activity. The techniques applied aims to understand the complexity of the fishing activity as well as its actors, the ways they are organized, the places and methods they use to carry out the activity and the uses that are given to the fish that is catch. Therefore, the approach with the different techniques facilitate a methodological triangulation that allows us to visualize this activity from different angles, providing the opportunity for new interpretations and arising new questions as well. Each of the techniques used in this study adopts a participatory approach that involves the study population in each of its stages.

The application of the techniques described below goes from the particular to the general, seeking, at first, approaches with the fishing communities of the influence and interest areas and developing with them the construction processes that makes possible to understand the context in which the artisanal fishing takes place in the area where Puerto Antioquia will be installed. Following this activities we developed more general exercises and lean on secondary information in order to guarantee the triangulation of the initial findings.

Taking as reference the project influence and interest areas (Figure 2.1) that emerges from the licensing process, the three fishing associations that were defined as objective populations were those of the interest communities that are self-recognized as the main users of Colombia Bay; area where the port marine platform will be located. These fishing associations are the Nueva Colonia Fishermen's Association –APEANCO–, the Turbo's Channel Fishermen's Association –ASOPESCATUR– and the Puerto Girón Fishermen's Association, the latter is actually in process of constitution and formalization.

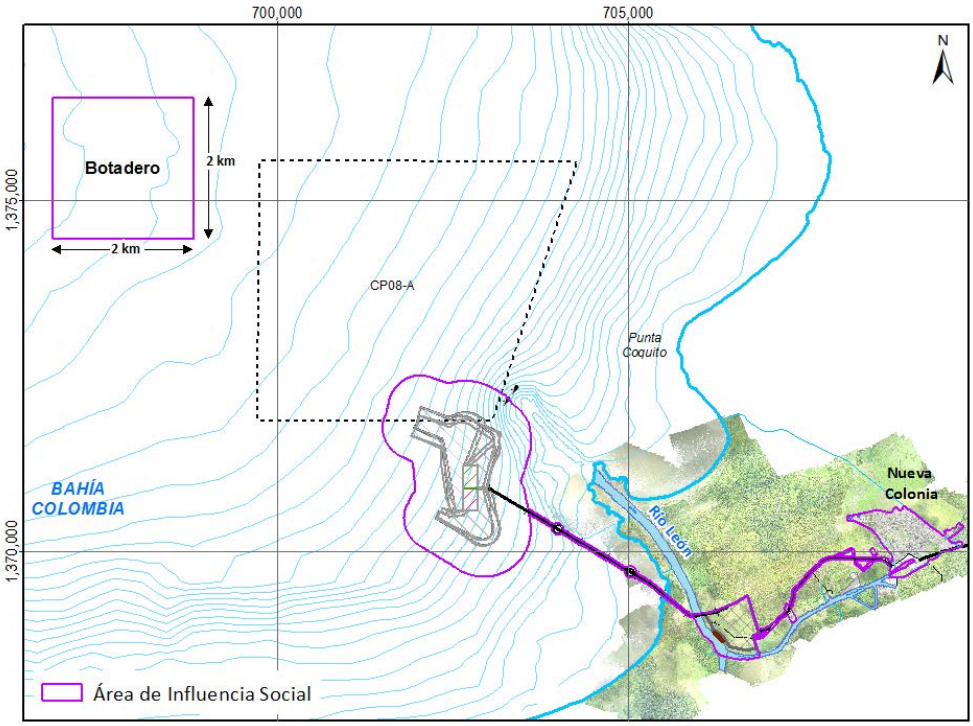


Figure 2.1 Socioeconomic influence area

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

The primary information was collected through the following techniques:

Social cartography: as a tool for the construction of collective knowledge, social cartography has made it possible to generate a first approach to the community and its geographical, socioeconomic and historical cultural spaces. The proposed spaces with each community allows us to elaborate the collective fishing maps, through the participatory diagnostic process, where the actors identify the important sites for the proper development of their economic activity and the uses assigned to each one. Beyond the act of representing the territory and the fishing routes and places, the mapping process allows us to unleash a series of wider communication and reflection processes that highlight the shades that surround and give meaning to the practice of artisanal fishing in the southern zone of the Urabá Gulf. In this way, the importance of the social space constructions generated by local actors are recognized.

Ecological calendar: to make possible a complete understanding of the economic activity of artisanal fishing, an ecological calendar is elaborated. These calendar allows to demonstrate the productive social daily life and the knowledge that the actors have of their natural environment and other aspects that have an incidence on their productive cycle, such as climate variability and species that are captured at different times of the year, among others. Figure 2.2 shows the calendar model used during the participatory characterization workshops.

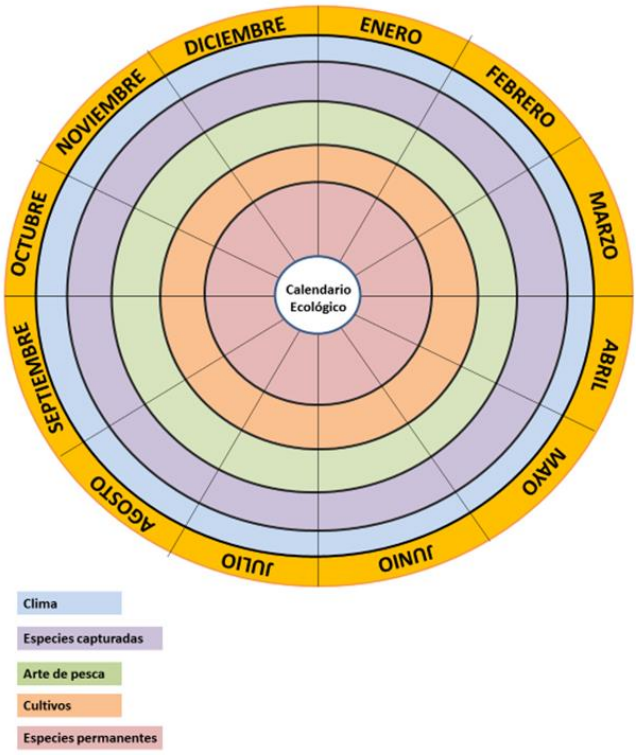


Figure 2.2 Ecological calendar

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

The workshops were carried out in each community, with the voluntary participation of a certain number of fisherman's who were interest in be part of these spaces for the collective diagnosis of their activity (Photograph 1.1). In the case of APEANCO and ASOPESCATUR, the workshops were held on March 2 and 8 of 2018, while a space was programmed with the Puerto Girón fisherman's Association on June 4, 2018 (Annex2.2 - 2.2a, Listado de Asistencia de talleres de pesca).

Fishing activity form: In addition to the exercises with a qualitative approach, it is necessary to generate quantifiable data that facilitate the analysis of the current reality of the artisanal fishing activity. Therefore, a survey is designed and applied to collect economic productive data that aims to provide accurate information on the role played by fishing in the economic scenario of those who performed this activity and with what tools the fisherman's

count to do it, either as a means of subsistence or as a complementary economic activity (Annex 2.2 - 2.2a _Fichas Actividad Pesquera). Figure 1.3 shows the basic structure of the fishing activity form applied in each group of the interest.

PLAN DE CUMPLIMIENTO DE ESTANDARES DE DESEMPEÑO SOCIAL Y AMBIENTAL_PUERTO ANTIOQUIA

FICHA ACTIVIDAD PESQUERA

Ficha Nº:
Fecha:

INFORMACIÓN GEOGRÁFICA (1)

1.1. País:	1.2. Departamento	1.3. Municipio	1.4. Vereda/Corregimiento

ASPECTOS GENERALES (2)

2.1. Lugar de embarque		2.2. Lugar de desembarque	

UNIDAD PESQUERA (3)

3.1. TIPO DE EMBARCACIÓN: 1. ( ) Bote 2. ( ) Canoa 3. ( ) Chalupa 4. ( ) Lancha 5. ( ) Otro Cuál?

3.2. IMPULSO DE LA EMBARCACIÓN: 1. ( ) Motor 2. ( ) Remo

4.3. ACTIVO: 1. ( ) Propia 2. ( ) Prestada 3. ( ) Alquilada 4. ( ) Valor del alquiler por faena $_____

ACTIVIDAD DE PESCA (4)

4.1. ARTES DE PESCA: 1. ( ) Anzuelo y/o línea de mano 2. ( ) Arpón y/o buceo 3. ( ) Atarraya 4. ( ) Boliche

4. ( ) Red de enmalle y/o trasmallo 5. ( ) Palangre 6. ( ) Otro Cuál? 6. Profundidad aproximada:

4.2. USO DE LA CAPTURA: 1. ( ) Venta %_____ 2. ( ) Autoconsumo %_____ 3. ( ) Truque %_____

4.3. LUGAR DE VENTA: 1. ( ) Embarcadero 2. ( ) Restaurantes 3. ( ) Intermediario 4. ( ) Hotel 5. ( ) Plaza de mercado

4.4. LUGAR DE CAPTURA CARNADA :

4.5. LUGAR DE CAPTURA PECES :

4.6. REPORTE DE FAENA FECHA	1. Fecha de inicio	DD	MM	AAAA	2. Fecha final	DD	MM	AAAA
4.7. REPORTE DE FAENA HORA	1. Hora de inicio:				2. Hora final:			

ACTIVIDAD ECONÓMICA (5)

5.1. CUAL ES SU ACTIVIDAD ECONÓMICA PRINCIPAL:

5.2. ACTIVIDADES ALTERNAS A LA PESCA:

5.3. INTENSIDAD DE LA PESCA: 1. ( ) Ocasional 2. ( ) Permanente 3. ( ) Transitoria

5.4. DEPENDENCIA DE LA ACTIVIDAD DE LA PESCA: 1. ( ) Total 2. ( ) Parcial 3. ( ) No depende

5.5. GANANCIA DE LA FAENA DE PESCA: 1. ( ) venta por unidades $ 2. ( ) venta por kilos $

3. ( ) Otros ingresos $

Total de ingresos : $ _____

5.6. COSTO DE LA FAENA DE PESCA: 1. ( ) Carnada $ 2. ( ) Alimentación $ 3. ( ) arte de pesca $

4. ( ) Combustible $ 5. ( ) Hielo $ 6. ( ) Otro cual $

OBSERVACIONES (6):

CONTROL DEL INSTRUMENTO (7):

Pescadores que respondieron la presente ficha

Nombre	Cédula	teléfono

Figure 2.3 Fishing activity form

Source: Aqua & Terra Consultores Asociados S.A.S, 2017.

Later, more general exercises were developed with the aim of capturing a macro scenario of the development of artisanal fishing in the project's installation area, through general monitoring in strategic areas and georeferencing exercises.

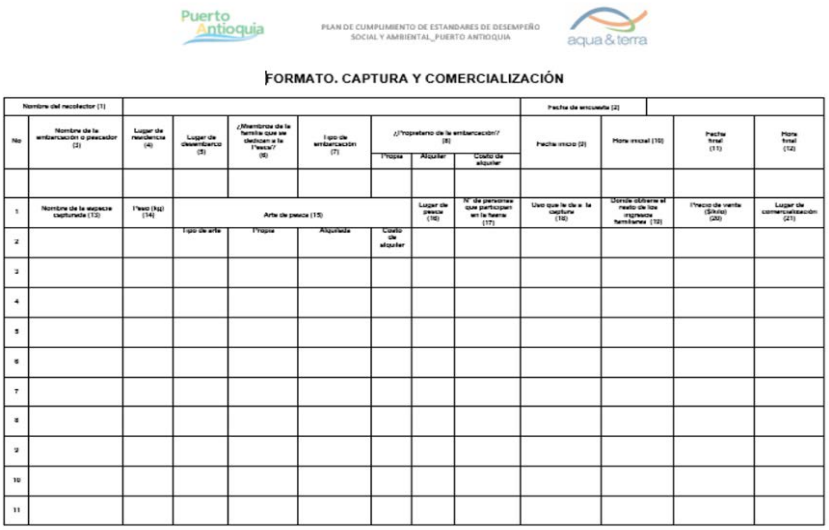
Monitoring and georeferencing of the fishing activity in the project area: with the objective of updating the information generated through this same exercise carried out during the licensing process, monitoring and georeferencing sessions were carried out for 6 days to identify the presence of fishermen in the marine area of the project. From this exercise it was possible to unveil the fishermen mobility logics, the prioritization given to the fishing sites according to the type of art they use and the equipment they have, and their places of origin. The record of this activity was made through a form designed to obtain the required information (Figure 2.4).

FORMATO DE CAMPO OBSERVACIÓN DIRECTA A PESCADORES EN EL ÁREA DE INFLUENCIA DEL PROYECTO								
FECHA:				RESPONSABLE:				
HORA INICIAL Y FINAL :				OBSERVACIONES:				
NOMBRE DE EMBARCACIÓN	TIPO DE EMBARCACIÓN	TIEMPO DE PERMANENCIA EN EL ÁREA	TIPO DE ARTE DE PESCA	Nº TRIPULANTES	HORA	PUNTO GEO-REFERENCIADO	NUMERO DE FOTOGRAFIA	LUGAR DE ORIGEN (PESCADOR)

Figure 2.4 Register form of fishermen direct observations in the marine influence area of the project

Source: Aqua & Terra Consultores Asociados, 2018

Monitoring in major landing areas: an update of the results of these exercise that was carried out during the licensing process, was also made with 6 days of monitoring at the main landing points, that is, the pier of Nueva Colonia and Puerto Girón. Through this exercise we can understand in more detail way the process of marketing the product caught, the duration of the fishing tasks of each fisherman and the places of capture for each species. The information collected is recorded through the form showed in Figure 2.5.



FORMATO. CAPTURA Y COMERCIALIZACIÓN

Nombre del recolector (1)									Fecha de encuesta (2)			
No	Nombre de la embarcación o pescador (2)	Lugar de residencia (4)	Lugar de desembarco (5)	¿Miembros de la familia que se dedican a la Pesca? (6)	Tipo de embarcación (7)	¿Propietario de la embarcación? (8)			Fecha inicio (9)	Hora inicial (10)	Fecha final (11)	Hora final (12)
						Propia	Alquiler	Costo de alquiler				
1	Nombre de la especie capturada (13)	Peso (Kg) (14)	Arte de pesca (15)				Lugar de pesca (16)	N° de personas que participan en la faena (17)	Uso que le da a la captura (18)	Donde obtiene el resto de los ingresos familiares (19)	Precio de venta (Si/kilo) (20)	Lugar de comercialización (21)
2			Tipo de arte	Propia	Alquilada	Costo de alquiler						
3												
4												
5												
6												
7												
8												
9												
10												
11												

Figure 2.5 Capture and commercialization form

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Recognition routes: there is a guided tour with the fishermen of the Nueva Colonia Fishermen Association -APEANCO-, in which they indicate the sites they consider important for their activity. The objective of this exercise, rather than verifying the fishing activity in the indicated points, seeks to make a real recognition of the physical spaces highlighted during the cartography exercises. This exercise measure the levels of interaction that could be generated between the fishing activity and the future port activity.

Secondary information: Local literature was also used as an input that would allow to triangulate the primary information obtained from the exercises previously exposed. Such information is like the “Informe de caracterización etnográfica de la pesca artesanal en el Golfo de Urabá” that was developed by the Sede de Ciencias del Mar de la Universidad de Antioquia, within the framework of the project Lineamientos prioritarios para la formulación de un ordenamiento pesquero del Golfo de Urabá –LOPEGU-“.

2.3 ARTISANAL FISHING CHARACTERIZATION

To understand the practice of artisanal fishing that the project's interest communities develop we need to pay special attention to the social, economic, political and cultural dynamics of their contexts. Due to its proximity that these populations have to the project

and the uses they gave to some marine areas that could interact with the future port activity, the present characterization will expose the main generalities and specificities of these populations to deploy concrete actions toward to the socio-environmental matters that result in improvements their quality of life.

A general overview of the three groups of fishing communities that concern us identifies settlement processes that correspond, for the case of Nueva Colonia, to farmers communities dedicated by habit to agriculture that, as a result of the actions of illegal armed groups in their places of origin in the decade of the 90's, were forced to move towards the coasts of the Urabá Gulf. After the loss of their land and the absence of affordable land for cultivation, this population found in that area a new alternative to guarantee their economic sustenance and food security for their families. With regard to Puerto Girón, its settlement processes are mainly due to economic reasons, closely linked to the demand of workers from the company Maderas del Darién on the banks of the León River, in Apartadó, which motivated the arrival of a significant percentage of the population of the department of Chocó. In this way, the processes of uprooting or forced displacement, as well as the economic booms for the wood industry have caused a considerable increase in the coastal population that depends partially or totally on fishing in the Gulf. This determinate the ways in which these fishing communities exercise the activity. We are before a fishing activity that has been adopted as an economic activity through processes of adaptation to the new vital scenarios of these populations and, to a lesser extent, through the transmission of ancestral practices. It is a fishing of versatile character that alternates with another type of economic activities, without losing an important role for the subsistence of these communities.

2.3.1 Associations and organizational processes

Although actually it is possible to say that the artisanal fishing communities of Nueva Colonia, the Guillermo Henríquez Gallo Urbanization and Puerto Girón have taken steps towards a model of associative logic, its processes of consolidation and integration are still incipient, seeing their achievements as base organizations, whose formation should be directly linked to generating improvements in the productive chain of artisanal fishing. Besides the existing structures have managed to integrate a large part of the fishermen in

the area, they have not been able to consolidate as an active forces from which substantial changes in the activity can take place.

The Fishermen-Farmers Association of Nueva Colonia is the legally constituted organization that has managed to associate large part of the fishing community of that district. However, since its founding in 2005 to date, it seems to have lost some credibility within the organization itself and against those who have remained distant from its process, having failed to materialize concrete benefits for its members. A contrast between the data recorded in 2015, during the project licensing process, and the data delivered formally by the association's board during a meeting held on November 17, 2017 (Annex 2.2 - 2.2a Listado Pescadores) shows a significant increase in the number of linked personnel, from thirty-five (35) members to one hundred and one (101) registered members. However, its volume contrasts with its weak organizational structure and its limited management capacity, because despite having good relations with the institutions, they have not managed, as an organization, to realize tangible benefits for their members.

It must be said that those fishermen who are unlinked are independent actors that are not grouped under any associated figure. From the lists delivered by the association and from the data generated through the monitors in the marine area of the project and in Nueva Colonia pier, at least twenty three (23) persons can be identified as fishermen not affiliated.

The Turbo´s channel Fishermen's Association – ASOPESCATUR, is an organization formed approximately three (3) years ago, as a result of the process of resettlement of the Vereda El Canal population, relocated at the Guillermo Henríquez Gallo Urbanization. The permanent accompaniment of Fundauniban in the resettlement process of this community has brought benefits to the fishermen, because they are the object of organizational strengthening processes through training and provision tools that allow them to optimally carry out their activity. To date, this base organization integrates twenty eight (28) members who are part of the resettlement process, who through the strengthening artisanal fishery program which they were part as a resettled community have access to seven (7) boats, with outboard motors. For the boats uses, seven groups of four people were organized and to each group was assigned a boat that is normally used by two people.

Although these associations remain relatively active in the area, they presents some weaknesses at the organizational level interior that do not allow to generate approaches or alliances between them, which are oriented to the achievement of more far-reaching actions that point to mitigate the imminent reduction both in size and quantity of the fishing resource. This reduction is due to different causes such as overexploitation by industrial fishing, the use of unsuitable fishing arts and methods, like the extensive used of trammel nets, the increase in the number of fishermen as a result of the displacement phenomenon in the region, the water resource and mangrove ecosystem affectation by the agro-industry and the extensive cattle raising, the fishermen's associations weak organizational level and the lack of state support for their processes.

The Puerto Girón Fishermen's Association is still in the process of being formed. Although the consolidation of a cooperative that brings together the fishing community of the area is central to the community development plan, this aspiration has not yet been possible. However, to date there are thirty seven (37) artisan fishermen in this community, which has a total of four hundred fourteen (414) inhabitants, according to the data included in the community development plan, representing 8,9% of the total population of the community (Annex 2.2 - 2.2a _Listado Pescadores). The results of this exercise are close to the data officially released by the community through its community development plan, where 10% of the fishing population is reported.

In summary, this base organizations that integrate and represent the interest fishing communities of the project are of an initial character, because their conformation has not translated into tangible benefits for their members nor have they been configured as structures organized from which is possible to manage improvements in the productive chain of this artisan activity. In each fishing community persists a competitive logic system, which is reflected in aspects such as individualism in the tasks, the absence of market networks for the resource commercialization which make the resource sale still subject to intermediaries' action, making it less profitable. Because of this, the artisanal activity continues to be an activity with incipient levels of planning and, therefore, don't fulfill the needs of fishermen and their families.

2.3.2 Art and capture methods

From the different activities carried out it is possible to identify, among a wide repertoire of fishing arts and methods (Annex 2.2 - 2.2a Artes de Pesca), patterns that are common to the three interest fishing communities, which refer to the use of trammel nets as favorite fishing art for the accomplishment of the tasks (Figure 2.6)

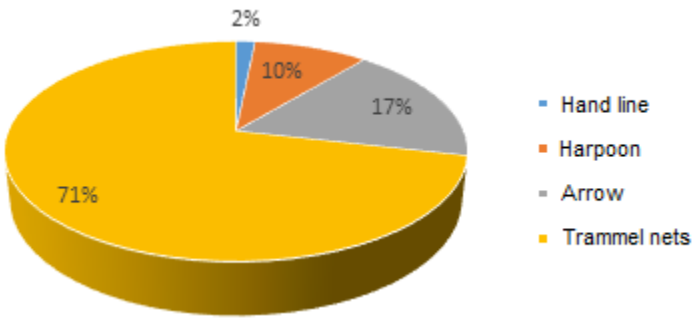


Figure 2.6 Fishing arts

Source: Aqua&Terra Consultores Asociados, 2018

The search to adopt higher levels of techniques that guarantee greater capture in a scenario where the fishing resource has been progressively scarce, has resulted in many cases in the excessive acquisition of this type of tools. This, added to the increase of the number of fishermen who have arrived to the Gulf looking for an economic alternative, supposes a sustained pressure on the resource that as a result intensify the processes of ecosystems affectation, whose effects relapse again fishermen.

However, this tendency becomes more evident for the case of Nueva Colonia (Figure 2.7) where the use of trammel nets exceeds the use of other types of fishing arts. In this area the use of different types of nets is reported for the capture of a certain type of species ranging from 2 to 7 inches of the nets eye, both in the enclosure mode and in draft. However, the use of small nets eye predominates, because they are the ones that have the lowest cost in the market and those that guarantee the capture, even of individuals of very small sizes, but it is not yet been regulated by the competent authority.

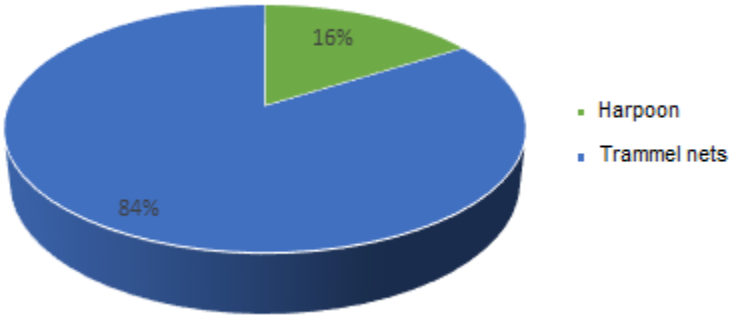


Figure 2.7 Fishing arts in Nueva Colonia

Source: Aqua&Terra Consultores Asociados, 2018

In Nueva Colonia the reduction of the fishing resource has given rise to a particular phenomenon, where the process of reduction of the resource is directly proportional to the acquisition of additional trammel nets segments that the fishermen adhere to their nets, resulting in trammels up to a thousand (1.000) meters long to be able to guarantee a minimum capture. Previously, the fishing communities made use of much smaller nets in size, with which they managed to capture individuals of moderate sizes that generated profitability. Today, they have interpreted the intensive purchase of nets as the solution to the low catch rate in the Gulf.

Within APEANCO there is the impetus to generate actions to reduce the use of these nets, however, they do not have sufficient institutional support to sensitize the entire fishing community about the implications of its long-term use, much less to regulate its marketing. For its part, ASOPESCATUR, as a direct beneficiary of the fishing art endowment projects by Fundauniban, has equipment suitable for its tasks accomplishment. Today, the percentage of fishermen who still maintain fishing methods and arts whose catches are more selective is reduced, therefore, are more oriented towards the preservation of the resource. Within this fishing methods and art area the arrow, the harpoon and isolated cases of artificial reefs.

Although the case of Puerto Girón seems to present the same tendency towards the use of trammel nets (Figure 2.8), there are evidence related to the common use of the arrow.

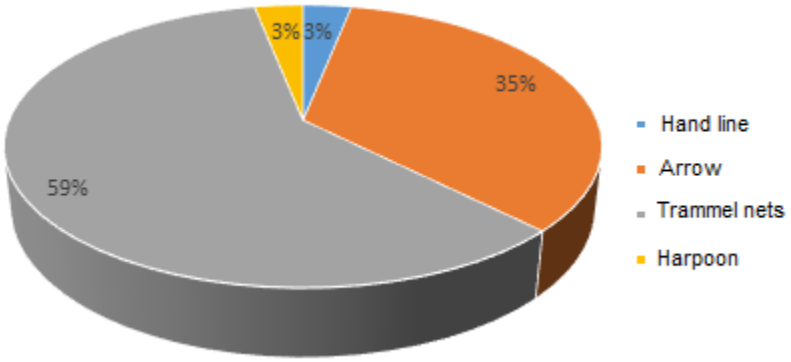


Figure 2.8 Fishing arts in Puerto Girón

Source: Aqua&Terra Consultores Asociados, 2018

The use of the arrow like fishing art requires different working rhythms and different meteorological conditions to those applied when working with trammel nets. Arrow fishing takes place mainly at night, preferably at times when the south winds or the breeze coming from the north of the Gulf do not generate excessive waves, as this reduces the level of visibility of the individuals. This is an art that can be used both in shallow areas and in deeper areas, depending on the type of boat and its impulse method and the type of species that the fisherman want to capture.

The fishermen that uses arrows and have a motor driven boat have a greater autonomy to access more remote areas of the Gulf. Those who rely on small boats driven by rowing are more dependent on weather conditions, as they find it difficult to cope with bad weather while being away from the coast. That is why, in the days when the sea level increases due to the breeze or the south winds, they choose to travel around the area of Bahía Colombia in order to reach more remote areas.

2.3.3 Boats types

Four (4) types of boats are reported in the area (chalupas, pangas, wooden hulls and boats in fiber or wood; Photograph 2.1), which operate through different technological systems, whether they are rowing paddles or motors, designed for capture but not for the conservation of the fishing resource. In Nueva Colonia the use of boats named chalupas and wood boats predominates to carry out the tasks, while in Puerto Girón there are still isolated cases of

fishing in very small canoes, since the Rio Leon is an important fishing route, as will be seen later.

Chalupa

Panga

Fiber small boat

Wood Boat

Photograph 2.1 Boats types

Source: Aqua&Terra Consultores Asociados, 2018

Of the four types of boats mentioned, all can be driven by motor except the small boats. However, a large part of the fishermen do not have enough capital to acquire these equipment, so a percentage of them use rowing or paddle to move. In the case of the fishermen who uses the arrow method the boats are driven by both methods, since the motor is required to have greater autonomy and reach more remote areas, and the paddle is use during the fishing activity, because the motor sound disperses the fish. In general, a large part of the population fishing task are carry out between one (1) and four (4) days, depending on the fishing equipment that they have and the climatic conditions of the Gulf. Although it seems that the fishermen that use arrow and move with paddles do not have enough

autonomy to make long trips and therefore their tasks are rather short, when the weather favors the fishing task, they are able to reach the northwestern of the Gulf, developing tasks of at least four (4) days.

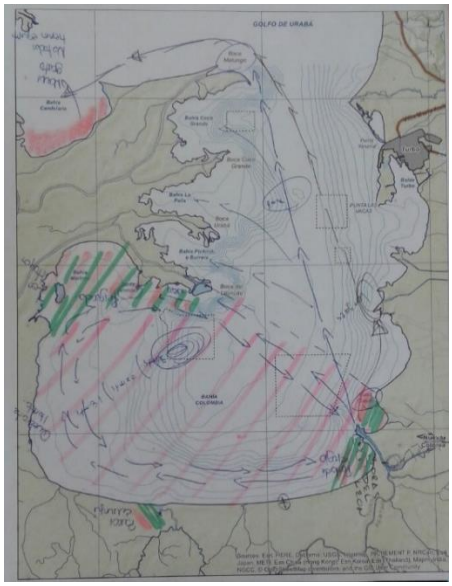
The monitoring exercise in landing areas reported 81% of fishermen who own their boats and 19% who rent a boat to work it. This exercise was applied to a member of each boat that arrived at the two main landing piers and not to the entire crew. Faced with this, it is important to highlight the presence of a percentage of independent external or local fishermen who have boats and equipment but do not carry out the activity, for which they subcontract others fishermen's to do the job. In these cases, "[...] the profit from the sale are distributed as follows, From the total amount the expenses are discount, that is, the money invested in ice, gasoline and food, what is left is divided by halves, 50% remains to the owner of the boat and the equipment, which generally allocates 10% for the nets arrangement and the maintenance of the motors, the remaining 50% is distributed, in equal parts, among the fishermen who develop the fishing tasks (generally they go of 2 to 3 fishermen)"[1]

This subcontracting exercise is also a reflection of the labor demand that has developed around the fishing activities, as a result of the settlement processes described above. Likewise, the outsourcing in the activity responds to the scarcity of the resource, since the tasks require a greater investment of effort, people and capital.

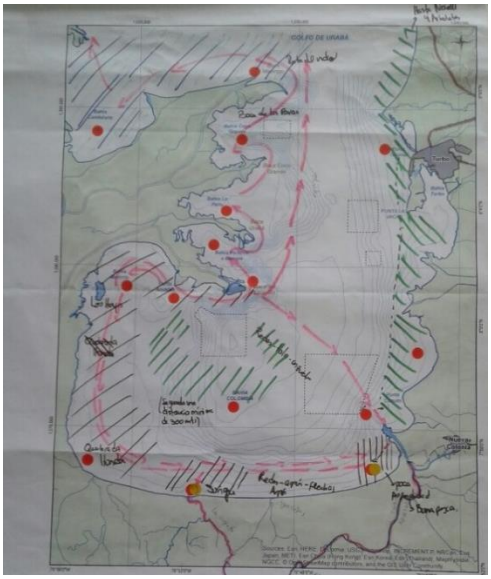
2.3.4 Navigation routes

From the social mapping exercises built with the fishing interest communities (Figure 2.9) was possible to catalog this fishing as an itinerant activity, since it does not take place in specific places permanently (See annex 2.2 - 2.2a_Rutas de pesca). However, for the purposes of the present characterization, four (4) general routes that are used by the fishing communities of Nueva Colonia and Puerto Girón were determined in a consensual manner.

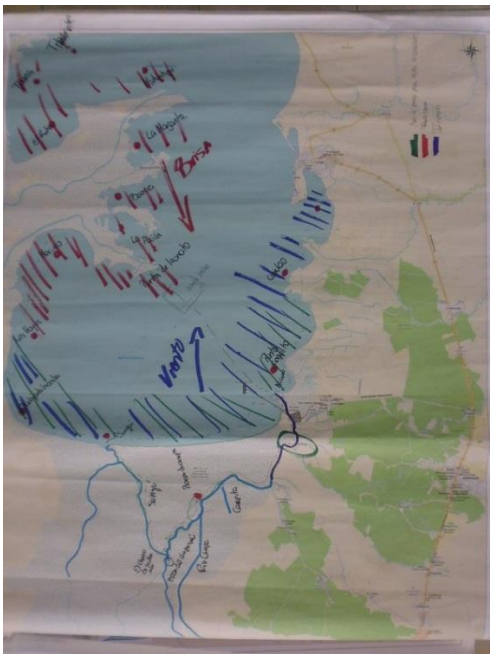
[1] UNIVERSIDAD DE ANTIOQUIA. Informe de caracterización etnográfica de la pesca artesanal en el Golfo de Urabá. 2015. Turbo, Antioquia: 2015. Consultado el 08 de junio de 2018. En https://lopeguuraba.wordpress.com/



APEANCO Cartography



ASOPESCATUR Cartography



Puerto Girón Cartography

Figure 2.9 Fishing communities navigation routes

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

The Table 2.1 allows visualize in a structured way the four (4) defined routes, describing the fishing points indicated in each of the collective mappings developed and indicating their main users

Table 2.1 Artisanal fishing navigation routes

ROUTE NO.	DESCRIPTION	USERS
Route 1: Northeast Zone	Account the outlet to the Rio Leon mouth and pass through points such as Micuro Bay, Punto Coquitos, Currulao River mouths, to the Turbo Bay.	• APEANCO • ASOPESCATUR • PUERTO GIRÓN FISHERMEN
Route 2: Nororiental León-Suriquí-Bahía Colombia	Account the Nueva Colonia or Puerto Girón exit canal upstream of the Rio León passing through Carepita, Aguas Negras, La Orqueta, Carepa River mouths, Chigorodó River mouths, until arriving at the Chorro de Juan Salas, the intersection between the Rio León and the Rio Suriquí to enter the Rio Suriquí and go out to the sea. From there, fishermen can return by sea to the Rio León or continue their transit to Quebradahonda and other fishing places in Bahía Colombia	• PUERTO GIRON • ASOPESCATUR
Route 3: Río León-Bahía Colombia-Gulf Northwest Zone	Account the exit from the León River and the transit to the left side of the mouth of the river to an inlet called Los Chorros, to go to the mouths of the Suriquí River, then to Quebradahonda, Los Hoyos, Marirrio Bay, Aristides Point, the mouths of the Leoncito. Depending on the success of the fishing, the path to the León River, directly from the Leoncito, is resumed. If you have not had a good job, there are trips to Bahía Burrera, Bahía la Paila, Punta del Indio, Bocas, Matuntugo, Candelaria, Tarena, Titumate and El Roto.	• APEANCO • ASOPESCATUR • PUERTO GIRÓN FISHERMEN
Route 4: Río León-Boca del Leoncito	Account the exit from the León River making a direct route, without skirting the coasts, towards the Leoncito and back.	• APEANCO • ASOPESCATUR • PUERTO GIRÓN FISHERMEN

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

Based on the information showed above, you can conclude that the navigation routes for the fishing interest groups overlap in a large extent, except in the use of the river. Considering the map done with the fishermen's association of Puerto Girón, it is evident the importance that the river has in the community, configuring itself as the central axis through which the territory is thought.

The navigation routes of the fishing interest communities that use smaller boats are subject to multiple variables, including the type of fishing art used. For example, the use of the trammel net implies displacements that, although they have defined spatial references, such as those outlined in Table 2.1, this are not previously delimited, which does not allow the establishment of permanent zones for the development of the activity, taking into account that their journeys are subject to the weather, the time of year, the fishing art, the type of boats and impulse and the target species. However, it is important to note that because the current situation of the fishery activity in the bay, the fishermen prefers to carry out fishing

activities task that last between one (1) and three (3) days, searching for places where the resource is abundant. In the case of fishermen that uses arrows as fishing art and who paddles in their boat, the routes are conditioned to the weather, because their capture method requires them to have an optimum visibility, which is difficult on days of rain, high seas and strong winds. In these cases, these fishermen move their activity to the upper part of the León River or choose to adopt shorter journeys, with strategic stops on the Gulf coasts to reach more distant points.

The climatic conditions are a determinant when defining the navigation routes used by the smaller boats to access their fishing areas. The exercise of cartography and ecological calendar allows to differentiate two seasons in a year that establish different conditions under which fishermen must generate strategies to continue with the development of their activity. In winter time, which starts between April and May and extends until November or December, the winds prevail from the south, and they travel through the routes two (2), three (3) and four (4). In the summer which starts between December and January and end up in April or May, the winds hits the north-south in a sustained manner, causing what they call "breeze", which generates strong waves, making it difficult to travel if they don't have boats of the chalupa type, which can break the sea waves. That is why in the summer months the fishermen prefers the three (3) and four (4) routes, seeking refuge from the strong waves (Table 2.1).

2.3.5 Fishing grounds

In a study carried out in 2013 by the Instituto de Ciencias Marinas y Costeras -INVEMAR- with the support of the Autoridad Nacional de Pesca - AUNAP- information about the existing of fishing grounds in the Urabá Gulf (Figure 2.10) shows the distribution of specific points that present appropriate conditions to facilitate the aggregation and abundance of fish.

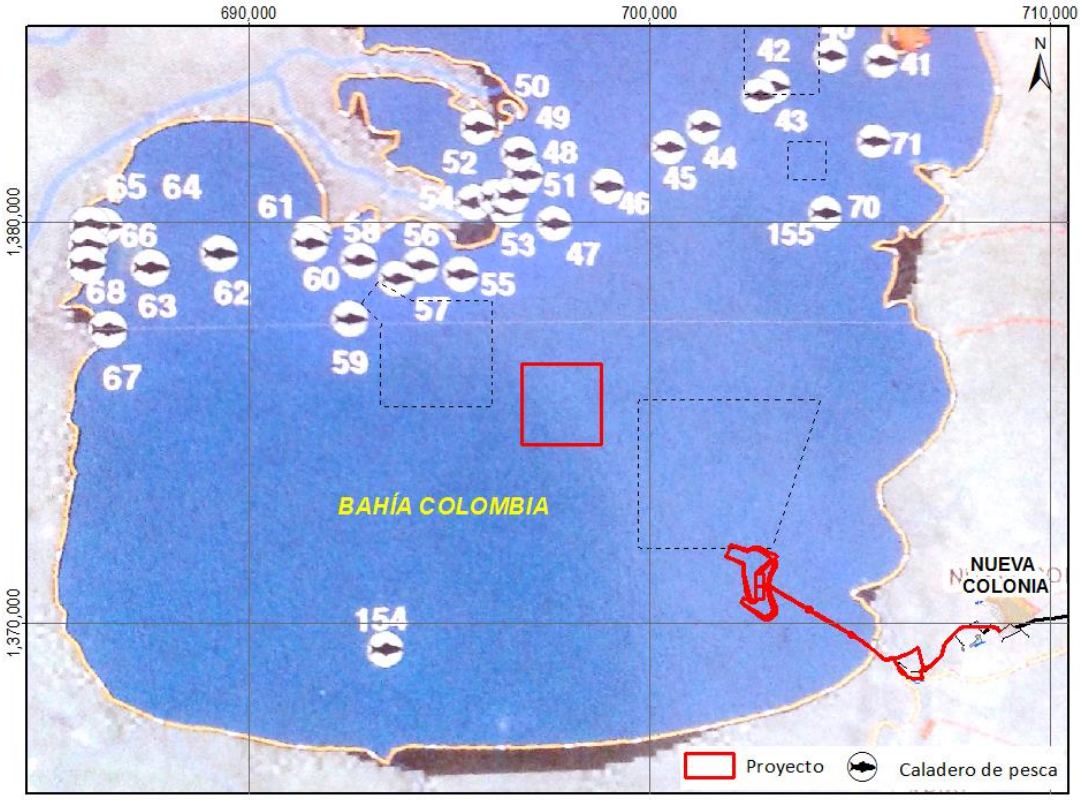


Figure 2.10 Fhishing sites reported by the Instituto de Investigaciones Marinas_INVEMAR_2013

Source: Instituto de Investigaciones Marinas_INVEMAR_2013

The information provided by the authorities and the cartographic exercises done with the Fishermen allows identifying coincidences in several of the fishing siteslike Hoyos, Mariríó Bay, Aristides Point, Leoncito mouths and Burrera Bay, where the communities should go fishing cause the evident reduction of the resource in Colombia Bay.

2.3.6 Interaction with current anchoring areas

The anchoring areas are considered as restricted marine areas published by the Dirección General Marítima. These anchoring areas cover exclusively the authorized route of cabotage traffic, or the registered route in case of carrying out international traffic, in accordance with the authorization contained in the administrative act issued by the Dirección General Marítima (Resolución No. 0372 de 2001 y Resolución No. 540 de 1 de octubre de 2012).

In addition, these resolutions mention that the vessels transiting speeds are below twenty-five (25) knots in internal bays and access channels, and thirty (30) knots in jurisdictional waters. Likewise, control measures of the surrounding area of vessels located in anchoring areas and restrictions associated with night navigation for smaller vessels are determined and adopted. Therefore, in these areas, no type of fishing activity or transit or stay is allowed. Figure 2.11 illustrates the current restrictions that are deployed in the Urabá Gulf, taking into account the current port dynamics in the area.

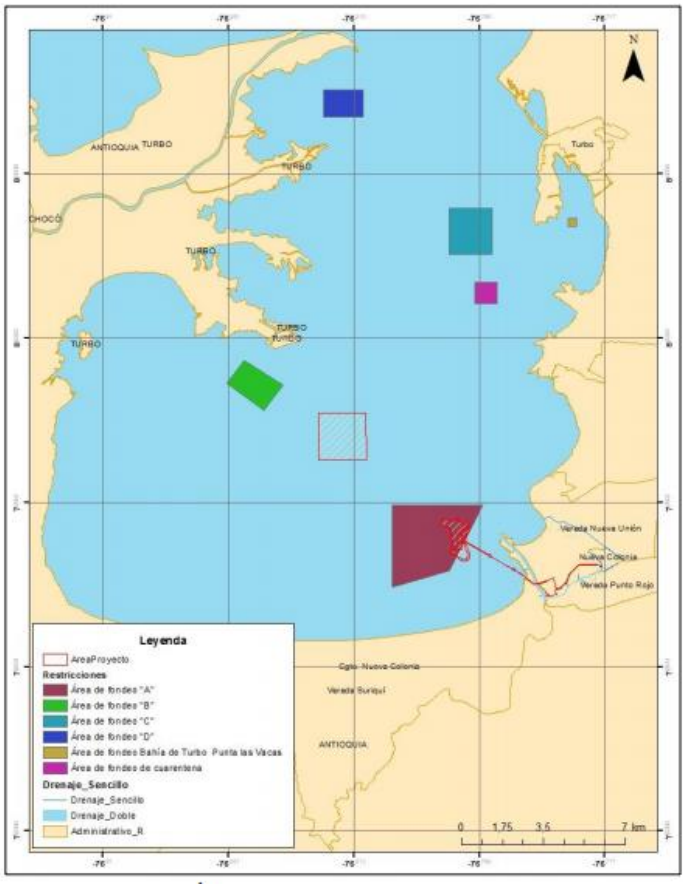


Figure 2.11 Areas of anchoring Resolución 0372 de 2001

Source: Aqua&Terra Consultores Asociados S.A.S, 2018. With information of DIMAR, through the Resolución 0371 de 2001.

Although the restriction is active, there is evidence in the anchoring area of fishermen exercising their activity, since they have adapted to the dynamics of entry and exit of larger vessels and take advantage of this additional zone of the Gulf. However, this is not constant

and is not considered as a fishing site for the subsistence or economic well-being of the fishermen of the Gulf, since the rest of the area is free of marine traffic to exercise its activity. Additionally, it is important to point out that the Dirección General Marítima -DIMAR- is currently in charge of monitoring and controlling the presence of small boats in this specific area.

The marine area that occupies the project Puerto Antioquia is superimposed on a current anchoring zone and, therefore, does not generate additional restrictions for the transit or stay of the smaller boats. Besides if you take into account that the current anchoring area covers 955,5 ha, it is feasible to make a brief calculation that allows us to show the specific data of the available area that remains with the project construction. You have, then, that the area that will occupy the dock along with the boat safety area (radius of 200 meters) will be 911,2 ha, which would reduce the current anchoring area in 44,3 ha.

2.3.7 Fishing sites

The results obtained in each exercise lead to classify as an itinerant fishing activity the one carry out by each one of the interest fishing communities, because the occurrence of multiple variables. However, from the data provided by the fishermen, a series of points that represent places of common use for the community are distinguished. For this characterization exercise purposes, the fishing sites highlighted during the participatory exercises and those reported in the monitoring exercises will be grouped for greater understanding. The results obtained through qualitative and quantitative exercises allow us to have an approximate number of the fishing sites reported by the fishermen of the groups characterized (Table 2.2). Also, the collected data allows to define the fishing sites number for each association (Table 2.3).

Table 2.2 Reported fishing sites

ZONE	FISHING POINTS	USERS
Northeast of the Urabá Gulf	Micuro Bay, Punta Coquitos, the mouths of the Currulao River, Bozón Bay, Turbo Bay, the lighthouses, the bonguitos.	• APEANCO • ASOPESCATUR • PUERTO GIRÓN FISHERMEN

ZONE	FISHING POINTS	USERS
León River	Carepita, Aguas Negras, La Orqueta, mouths of the Carepa River, mouths of the Chigorodó River, Chorro de Juan Salas, Suriquí River	• PUERTO GIRON FISHERMEN • ASOPESCATUR
Colombia Bay	Los Chorros, the Beach, mouths of the Suriquí River, Quebradahonda, Los Hoyos, Marirrio Bay, Aristides Point, the mouths of Leoncito, Río Negro.	• APEANCO • ASOPESCATUR • PUERTO GIRÓN FISHERMEN
Northwestern Zone of the Urabá Gulf	Burrera Bay, La Paila Bay, Punta del Indio, Bocas, Matuntugo, Candelaria, Marriaga, Margarita, Montaño, Yerbazal, Tarena, Titumate, La Rula, El Roto, Boca de las Pavas.	• APEANCO • ASOPESCATUR • PUERTO GIRÓN FISHERMEN
Total fishing places	37	

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

Table 2.3 Number of fishing sites reported by association

ASSOCIATION	NUMBER OF FISHING SITES REPORTED
Nueva Colonia Fishermen's Association –APEANCO–	25
The Turbo's Channel Fishermen's Association –ASOPESCATUR–	27
Puerto Girón Fishermen's Association	30

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

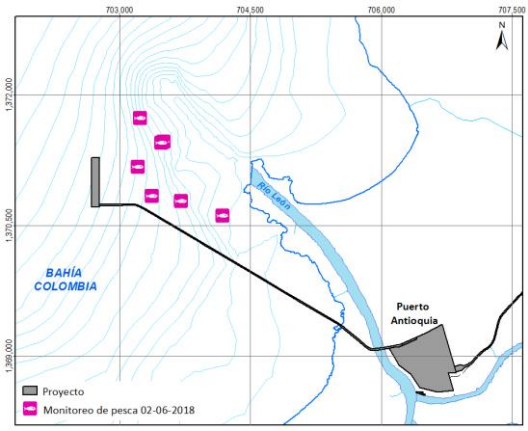
The difference between the fishermen of ASOPESCATUR and of Puerto Girón, compared to the fishermen of Nueva Colonia, is the use they make of the river area, which increases the alternatives they have to exercise their activity. However, the case of Puerto Girón must be read independently, taking into account the direct relationship that this community has with the León River. As this is an ethnic community located on the riverbank, its relationship with the river must be understood as a determinant of its identity construction processes and of its traditional subsistence practices.

The level of frequency with which fishermen make use of certain areas is linked to a multiplicity of factors, among which you can find the type of fishing art, the type of boat and how it is impulse, the weather and the target species. For example, if they want to catch a certain species, they has a tacit knowledge of the places this specie frequents and the logics under which it moves and shelters in the Gulf. This is the case of the mullet, which seeks the shore to protect itself and of species such as sea bass, grouper and snapper that manage to find themselves in these coastal areas in medium and large sizes. Following this example, the Puerto Girón fishermen that use arrows should look for shallower areas to

catch this type of fish, because this population has the possibility, by their fishing art, to be selective in their catches. Many of the fishermen resist to catch species of minimum sizes, because it is not profitable either. However, for fishermen who work with trammel nets it is more feasible to look for areas of a little more depth, if the intention is to catch species such as lebranche, tarpon, berrugate and horse mackerel.

2.3.8 Fishermen in the marine influence area of the project

In the monitoring carried out in the marine area of the project, it was possible to register that 36 boats in the period within June 2 to June 8. In average six (6) boats were observed daily, in the surrounding areas of the influence area of the project, of which 3% were less than 200 meters away from the area projected for the dock, while 97% of them were more than 250 meters from the influence area. Of this boats, 53% were carrying fishing activities in surrounding areas while 47% were passing by to other final destiny such as the places they do their fishing task or returning to make the sale or consumption of their catch (Figure 2.12).



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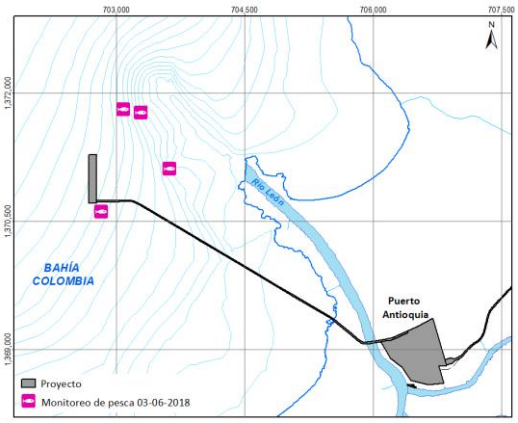

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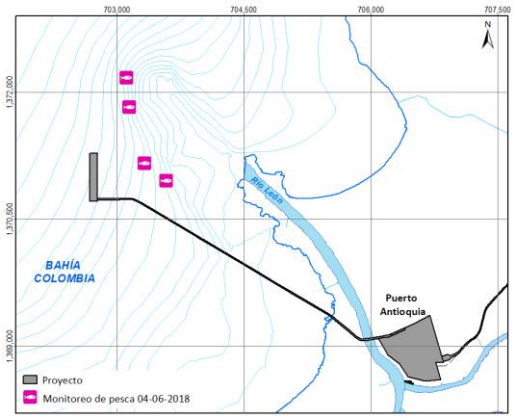

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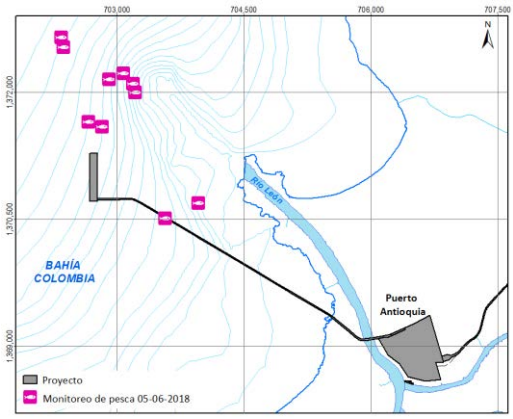

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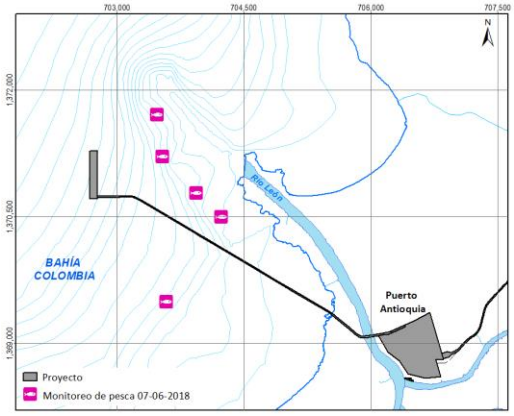

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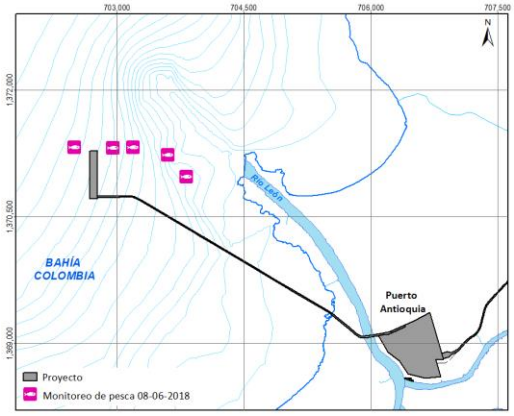

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Figure 2.12 Fishermen's report in the project area

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

As can be seen in Figure 2.13, 75% of the fishermen reported are from Nueva Colonia, 22% from Turbo and 3% from Puerto Girón.

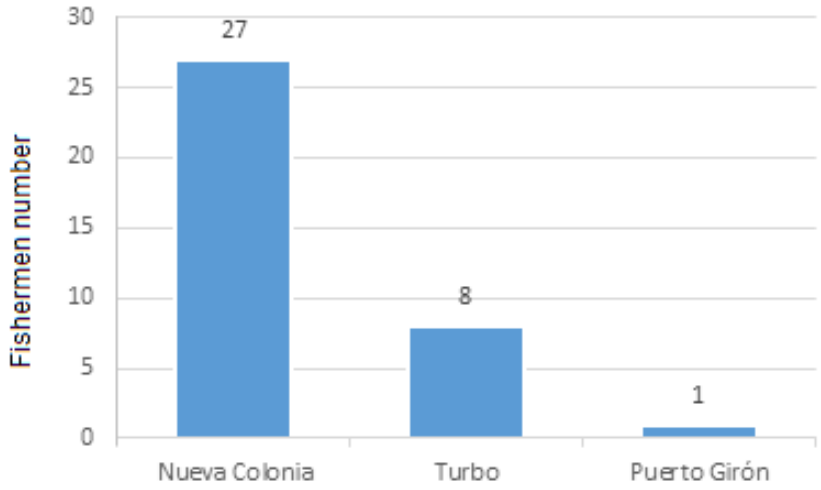


Figure 2.13 Place of origin of fishermen reported

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

The reports of the fishermen surveyed suggest a pattern in which they use of this area. Most of them were in the final phase of their fishing tasks, which had been carried out in areas further away from Colombia Bay, and their installation in this area was motivated by improving a catch that apparently had not been very profitable. Besides, fishermen with shrimp nets or cast nets tend to alternate between the bay located to the right of the mouths of the León River and the Micuro Bay, located in the left margin of the mouth of this river. However, only one case was recorded within the influence area of the project.

2.3.9 Captured species

Table 2.4 shows the main species captured by the fishing communities' object of the present characterization.

Table 2.4 Captured species

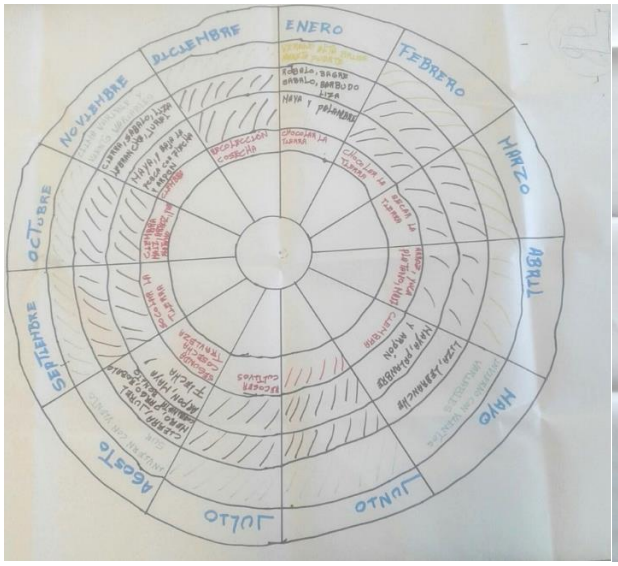
COMMON NAME	SPECIES
Timucu	*Strongylura timucu*
Parasii mullet	*Mugil incilis*
Gafftopsail catfish	*Bagre marinus*
Barbudo	*Bagre marinus*
Magdalena River prochilodus	*Prochilodus magdalenae*

COMMON NAME	SPECIES
Little tuna	*Euthynnus alletteratus*
Asian tiger shrimp	*Penaeus monodon*
Crucifex catfish	*Sciades proops*
Atlantic thread herring	*Opisthonema oglinum*
Blue runner	*Caranx crysos*
Hardhead	*Micropogonias furnieri*
Characin	*Leporinus sp.*
Driftwood catfish	*Ageneiosus pardalis*
Crevalle jack	*Caranx hippos*
Liza	*Mugil liza*
Atlantic goliath grouper	*Epinephelus itajara*
Striped mojarra	*Eugerres plumieri*
Trahira	*Hoplias malabaricus*
Snapper	*Lutjanus sp*
Swordspine snook	*Centropomus ensiferus*
Snook	*Centropomus sp*
Tarpon snook	*Centropomus pectinatus*
Silverfish	*Megalops atlanticus*
Atlantic cutlassfish	*Trichiurus lepturus*
Atlantic sierra	*Scomberomorus brasiliensis*
Castin leatherjack	*Oligoplites saliens*

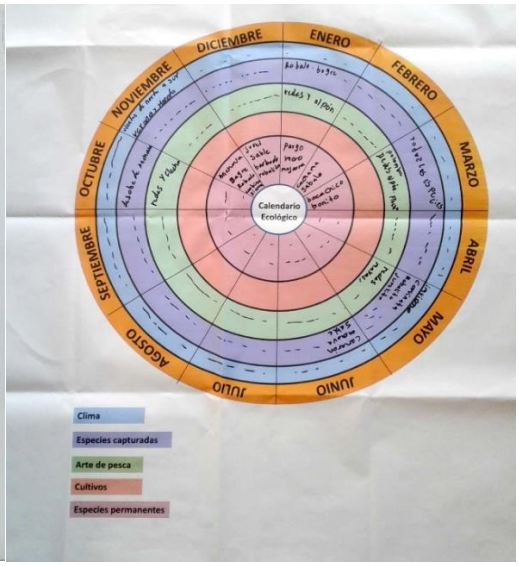
Source: Aqua&Terra Consultores Asociados S.A.S, 2018

2.3.10 Catches Seasonality

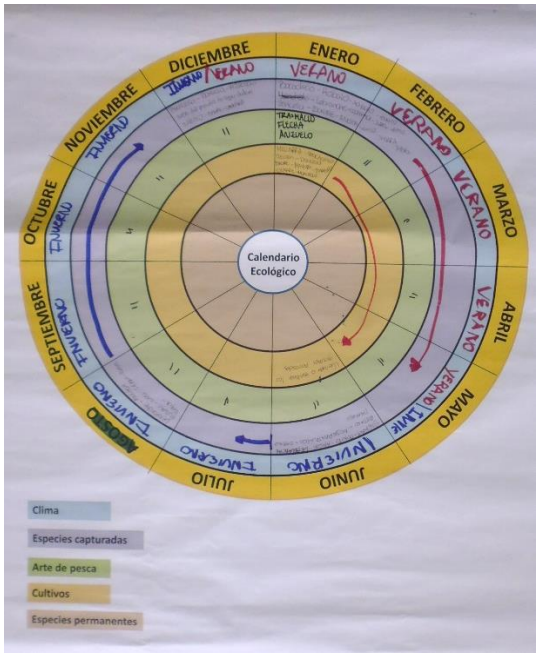
The ecological calendar exercise (Photograph 2.2) allows to understand the ways in which fishermen in this area organize their activity. As has been said before, fishermen generally identify two times in the year with climatic seasons that affects the species resource availability.



APEANCO Ecological Calendar



ASOPESCATUR Ecological Calendar



Puerto Girón Ecological Calendar

Photograph 2.2 Ecological Calendar by association

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

As indicated during these participatory exercises, between the months of December and May a summer season is identified, where the dry weather, high breezes and high tide predominate, which makes difficult to develop this activity due to the dangers that involves

facing the "mareta" as they call them, especially the fishermen who use arrow to make their catches. However, in these months several species that are very popular in the market like the snook, the catfish, the bearded and the mullet are abundant. For many fishermen the months of March and April are the most productive because all the species they caught in the gulf are presence.

In May winter enters the area, accompanied by winds from the south, with rainy times. During these months the fish that predominate are the atlantic sierra, the crevalle jack, the atlantic goliath grouper, the snapper, the hardhead, the snook and the little tuna. In June the shrimp, the parasii mullet and the atlantic cutlassfish. October is recognized as the parasii mullet spawning season. November and December are transition months, because the rains alternate with very dry times. For this time of the year the most abundant species are the Atlantic sierra, silverfish, mullet, lebrancho, y crevalle jack. In general, the most common species are the snook, parasii mullet, silverfish, atlantic cutlassfish and hardhead.

For APEANCO and ASOPESCATUR, the seasonality of their crops was also evaluated, taking into account, the agricultural vocation that its members have before reaching the coasts of the Urabá Gulf. Actually, most of the fishermen do not have land to cultivate, however there are those who have small fields that vary between corn, rice, yucca and plantain.

2.3.11 Landing area

The interest fishing communities have two main landing sites, the Nueva Colonia pier and the Puerto Girón pier (Photograph 2.3). Although both fulfill their role as commercialization places, it must be said that the hygiene and sanitary conditions of their facilities do not meet standard criteria for the care of the captured resource. Nueva Colonia, is emerging as an important center for marketing the fishing resource in the area, however, there are no collection centers to give it better management. This particular space is a center where fishers from different areas come together to market the product of their tasks. It also identifies the presence of people outside the community who have seen in the organizational weakness of the associations and the difficult access to boats and equipment a business

opportunity, by subcontracting fishermen of this community to carry out their activity. In this sense, the experts of the University of Antioquia, in their ethnographic report of the artisanal fishing in the Urabá Gulf established that in Nueva Colonia it is possible to identify a clear division of the profits according to the role assumed during the fishing task.

The main landing hours range between 4:00:00 a.m. and 6:00:00 a.m. The resource arrives at the pier and from there it is marketed directly with the consumer, through intermediaries or through direct contracts with banana plantations.

Nueva Colonia landing site

Puerto Girón landing site

Photograph 2.3 Nueva Colonia y Puerto Gir´n landing sites

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

The case of Puerto Girón contrasts a bit, since it functions as a landing place for the fishermen of the community, especially on occasions where the task does not went good

and they choose to return to the village and distribute the catch among family and friends. It happens, also, that the fish is conserved in ice, in case some visitor or member of the community wants to buy it. In cases where there is a lot of fish at the Nueva Colonia pier, fishermen from Puerto Girón move to the Zungo area to sell their production, taking advantage of the absence of intermediaries to generate more profitability.

Table 2.5 describes the approximate sale prices by species. Although standard prices may be managed, the value of the kg or unit of a given species may also be subject to its size. Thus, when this marketing process takes place without any type of regulation, there are arbitrariness in the allocation of certain individual's value.

Table 2.5 Species sale price

SPECIESe	UNIT / Kg	SALE price
Parasii mullet	Unit	$3000 -$ 10.000
Barbudo	Unit	$ 2.000 - $8.000
Snook	Kg	$12000 - $ 18.000
Snapper	Kg	$ 14000 - $ 18000
Silverfish	Kg	$ 9.000
Atlantic sierra	Kg	$ 12.000 - $ 16.000
Gafftopsail catfish	Kg	$ 8.000

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

Finally, with the monitoring exercises it is possible to establish that 90% of the fishing in the area has commercial use, while only 10% goes to self-consumption.

2.3.12 Fishing task cost

The average costs of a fishing task are subject to the type of fishing art used, the number of people participating in the task and the number of days worked. For each of the organizations it is possible to estimate the amount of capital that is invested to leave the site. Table 2.6 shows the fixed costs that fishermen must take into account for each of their tasks. The considered values are extracted from the socioeconomic surveys applied in each association.

Table 2.6 Fixed costs fishing task

RUBRO	PRICE
Combustible	105.000 gallon
Ice	700 x bucket
Feeding	5.000 x person x day

RUBRO	PRICE
Bait	N/A

Source: Aqua&Terra Consultores Asociados S.A.S, 2018

The fishermen of APEANCO and ASOPESCATUR report higher levels of technification, so they record more prolonged tasks, which means they spend more days of fishing task, from two (2) to three (3) days and three (3) to four (4) days, respectively, with the participation of two (2) or three (3) people. Under neither of the two main types of fishing arts that have been taken into account, the arrow and the cast nets, it is necessary to catch bait. However, in isolated cases, where the longline or hand line is used as complementary art, it is not necessary to allocate resources to obtain it, because, if needed, fishing is done in the river or in the Gulf.

As indicated in Table 2.7, the average costs of a fishing operation for the fishermen of APEANCO represent $ 225.000 Colombian pesos, the feeding has an approximate of $ 60,000 Colombian pesos, taking into account that the fishing activities last approximately four (4) days for two (2) or three (3) people. The combustible represents the highest cost because most of the time due to the scarcity of the resource the fishermen must travel long distances outside the gulf to obtain significant profits. Finally, a percentage of the expense is associated with the purchase of ice to conserve the product during the days of the task and finally there is an expense associated with the boats and equipment maintenance amounting to a line of $ 210.000 Colombian pesos per year.

Table 2.7 APEANCO fishing task cost in Colombian pesos

BAIT	FEEDING	COMBUSTIBLE	ICE	OTHER / WHAT
No cost, they fish at the edge of the Leon River	$ 60.000	$ 140.000	$25.000	Equipment maintenance $ 210.000 per year
TOTAL TASK				**225.000**

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

As indicated in Table 2.8, the average costs of a fishing activity for ASOPESCATUR members is equivalent to $ 227.000 Colombian pesos. The food has an approximate cost of $ 43.000 Colombian pesos. The fishermen of ASOPESCATUR carry out tasks of two (2) and three (3) days and it is usually done between two (2) people. The fuel has an approximate cost of $ 115.000 Colombian pesos, the ice has a cost of $ 28.000 Colombian

pesos and the batteries have an approximate cost of $ 4.000 Colombian pesos. Finally, there are additional expenses related to the fishing nets maintenance, although this expense does not occur during all the tasks, if it is presented constantly and has a cost of $ 37.000 Colombian pesos, of which $ 25.000 Colombian pesos is destined to the payment of the arrangement and $ 12.000 Colombian pesos or the purchase of nylon. Taking into account the above, a fishing operation has an investment of $ 227.000 Colombian pesos.

Table 2.8 ASOPESCATUR fishing task cost in Colombian pesos

BAIT	FEEDING	COMBUSTIBLE	ICE	OTHER / WHAT
No cost, they fish at the edge of the Leon River	$ 43.000	$ 115.000	$ 28.000	Nest maintenance per day of work $ 25.000, Nylon $ 12.000, Batteries $ 4.000
TOTAL TASK				**$ 227.000**

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

In the case of Puerto Girón, two scenarios must be taken into account, one in which the fishermen works with trammel nets and another were the fishermen uses the arrows. As indicated in Table 2.9, the average costs of a fishing task with an arrow is equivalent to $ 45.000 Colombian pesos, while for a fisherman who works with trammel nets and motor they add up to around $ 180.000 Colombian pesos. Feeding has a similar cost for both, since, usually, two (2) people participate in the fishing task, a cost that is around $ 30.000 Colombian pesos. The intensity of the tasks for the fishermen of Puerto Girón ranges from one (1) to three (3) days. The fuel, for those driven by motor, has an approximate cost of $ 70.000 Colombian pesos, in the ice there is an expense that ranges between $ 15.000 and $ 30.000 Colombian pesos. Finally, there are additional expenses related to the fishing nets maintenance, although this expense does not occur during all the tasks, if it is presented constantly and has a cost of $ 37.000 Colombian pesos, of which $ 25.000 Colombian pesos is destined to the payment of labor for the arrangement and $ 12.000 Colombian pesos for the purchase of nylon.

Table 2.9 Puerto Girón fishing task cost in Colombian pesos

FISHING ART	BAIT	FEEDING	COMBUSTIBLE	ICE	OTHER / WHAT
Arrow	N/A	$ 30.000	N/A	$ 15.000	N/A
TOTAL TASK					**$ 45.000**
Trammel nest	N/A	$ 50.000	$ 70.000	$ 30.000	Nest maintenance per day of work $ 25.000, Nylon $ 12.000,

FISHING ART	BAIT	FEEDING	COMBUSTIBLE	ICE	OTHER / WHAT
TOTAL TASK					$ 180.000

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

2.3.13 Profits distribution

In this zone, it is very common to distribute the profit, so that the owner of the boat and equipment receives 50%, while the other 50% is distributed among those who participated in the task, also keeping a small percentage for the equipment maintenance.

For the particular case of ASOPESCATUR, where there are seven boats distributed in seven groups of four people, the profits obtained can be used exclusively for those who perform the task, or they can replicate the model previously outlined, where 50% is distributed between those who performed the task, while the other 50% is shared among the four members of the group.

It should be noted that those who engage in the artisanal fishing activity, either partially or totally, receive their livelihood immediately after the direct marketing process in the landing areas, which are volatile and easily fall short before the needs of fishermen and their families. It is this dynamic labor regulated by the immediacy of instantaneous payment that hinders the processes of capital accumulation or savings, which places fishermen in vulnerable conditions and limits their capacity for self-determination by being subject to the day to day need.

2.3.14 Economic alternatives to fishing

For some of the members of the Fishermen Association APEANCO, an alternative to artisanal fishing is represented by working on banana plantations, however, the percentage of associates who are working in this activity is only 3%. The association is recognized as an association of fishermen farmers, for which an alternative activity is agriculture, however, this does not represent a constant economic income, because due to the lack of land for production, fishermen who manage to have some crops use them for self-consumption and not for sale. Another trade that can be considered as an alternative activity to fishing this association is woodworking.

Although they state that their main economic activity is artisanal fishing, the majority of the fishermen of ASOPESCATUR, dedicate themselves to other tasks such as day labor in banana and cattle plantations, construction activities, cutters, and what they point out as different trades that refers to activities related to fencing, electricity and plumbing, among others. Another alternating activity that predominates refers to the fishing net reparation, this work is charged daily and as previously indicated a working day in this activity is equivalent to $ 25.000 Colombian pesos.

In the case of the artisanal fishermen of Puerto Girón, 62% of the members report that they depend totally on fishing activity, while 33% state that they depend partially and the remaining 5% say they do not depend on it. However, 64,8% of the members of the association develop alternative activities to fishing, among them are the fluvial transport, the work in banana plantations, the dedication to several trades in companies of the zone, the work in public entities stand out, and the joinery and the wood cutting.

COMPLIANCE PLAN OF SOCIAL AND ENVIRONMENTAL PERFORMANCE STANDARDS - PUERTO ANTIOQUIA

DOCUMENT TITLE:	Updating Characterization Nueva Colonia – Puerto Girón

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1 UPDATING INFORMATION COMMUNITIES OF INTEREST

1.1 COMMUNITY

1.1.1 Socioeconomic characterization

For the information associated with the socio-economic and cultural component of the Nueva Colonia community, the compiled data is retaken through the characterization document of the Environmental Impact Study (Chapter 5 of the Environmental Impact Assessment) because the economic, social, labor and spatial dynamics in the zone. It does not present significant variations and that the updating of the national census is currently being carried out. With respect to the aspects associated with the participatory and social representation component; the internal processes of the population associated with ethnocultural self-recognition processes will be documented. Although they are located within the territorial unit of Nueva Colonia, to date no populations belonging to ethnic groups have been recognized in the influence area of the project.

Regarding the information related to the population of the area of direct influence formerly known as the population of the Canal and which was the subject of resettlement,-today known as the Guillermo Henríquez Gallo urbanization. The current conditions on the subject of population, public services, social and economic conditions will be exposed.

1.1.1.1 Internal processes of ethnocultural self-recognition

The community of Nueva Colonia is characterized by the confluence of countless cultures that embody the mixed nature of the village; in this context, incipient foundations are identified for the consolidation of a system of appropriation of cultural practices characteristic of the ancestral black culture, through actions of ethnic self-recognition by a minority sector of the population. As a product of this initiative, recently the Ministerio del Interior issued under Resolution 023 of March 20, 2018, registration of the Mayor Community Council of Black Communities of Nueva Colonia in its database. This newly constituted Council has a self-census of the month of May

2018 in which they report that their community is made up of 974 families, with a total of 4003 people who self-identify as Afro-descendants and members of the Community Council of this population. According to the information reported in the self-census, 2% of the families, that is to say approximately 20, are reported as the fishing population of the rural areas of the community. It is noteworthy that currently the population of Nueva Colonia is approximately 24.000 inhabitants. Next, the most relevant information is presented, reported by this new organizational structure that is newly formed in the Corregimiento of Nueva Colonia. The information documented here was provided by the Board of the Mayor Council of Black Communities of the Nueva Colonia. As can be seen, of the 24.000 inhabitants of Nueva Colonia, only 4003 self-identify as Afro-Colombian population and make up the Community Council of Nueva Colonia-COMANUCO, that is, 16% of the total population.

1.1.1.2 Community of the Mayor Council of Black communities de Nueva Colonia

It is clarified that although the presence of ethnic communities that may be affected by the project has not been identified within the area of influence of the project, attending the requirements made by the lenders, the following information from the newly constituted Community Council is provided, except that this information is not official and was contributed by the members of the Mayor Council of Black Communities of Nueva Colonia - COMANUCO.

The Mayor Council of Black Communities of Nueva Colonia - COMANUCO, between the months of April and May, carried out a self-census through which the community was asked about the information of their residence, neighborhood or village to which they belong, their name and surname, identification number, age, number of people that make up your family, marital status, profession, level of education, telephone and signature.

The Community Council reported that were counted 974 families that recognize themselves as afro descendants active members of the community council. Result of this exercise, the following information was obtained associated to the demographic, economic and educational components.

1.1.1.2.1 Demography

Nueva Colonia has 11 neighborhoods such as: Las Flores, 19 de Marzo, San José, Caribe 1 y 2, San Joaquín, Proban, Rabo largo, 24 de Diciembre, 29 de Noviembre, San Sebastián, Sarabanda and Uniban.

In the rural area are 15 veredas: California, San Jorge, Honduras, Rio Mar, La Esperanza, Nueva Union, La Lorena, Calle Larga, La Teka, La Piña, Los Coquitos, La Vitrina, Puerto Boy, La Macanda, San Bernando , The Recreation.

In response to the information reported by the Community Council, 974 families were identified, of which forty-two percent (42%) of the families live in the populated center and fifty-eight percent (58%) in the area. rural (Figure 1.1). It is noteworthy that the information provided, does not clarify the point of origin of this population with respect to the rural and neighborhood division of the corregimiento.

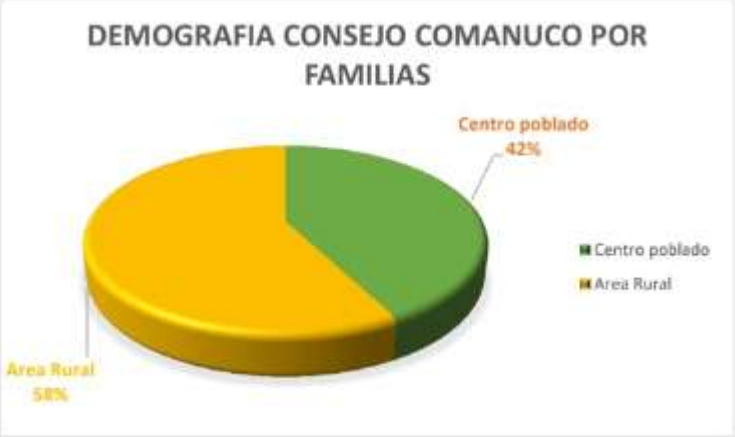

Figure 1.1 Demography Council _ COMANUCO

Source: Consejo Comunitario _COMANUCO_2018

The community council reports that the total population that composes it is of 4003 people, of these 45% live in the populated center and fifty-five percent 55% in the rural area.

The average number of members per family is 4 people, as shown in the Figure 1.2.

Figure 1.2 Average range of people by families

Source: Consejo Comunitario _COMANUCO_2018

In the 974 families, forty-nine point five percent (49.5%) make up groups of 4 to 6 people, forty-two point five percent (42.5%) from 0 to 3 people, six point three percent (6.3%) from 7 to 9 people and the two point one percent (2.1%) of 10 or more people integrate their family nucleus.

In the 974 families that the Council reports, fifty-three percent (53%) of the people live together, 28% are 28% single, seventeen percent 17% married, two percent 2 % is widowed.

1.1.1.2.2 Economic activity

The Council reports that: Nueva Colonia currently has different job creation companies, among which are Probán, Banadex, Uniban and Banacol; which are exporting banana and plantain organizations. There are also cattle ranches and plots that cultivate bananas and fishermen. Sixty-eight percent (68%) of the people subsist on non-formal activities, independent self-employed housewives with their own businesses and family plots. (See Figure 1.3).

Figure 1.3 Economic activity

Source: Consejo Comunitario _COMANUCO_2018

- Profession or occupation:

In the 974 families that confirm the council's internal census, thirty-one percent (31%) is a housewife.

- Twenty-two percent (22%) work in various trades.
- Twenty-one percent (21%) are farmers.
- Eleven percent (11%) are workers.
- Four percent (4%) are independent.
- Four percent (4%) is dedicated to other trades.
- Three percent (3%) are employed.
- Two percent (2%) are fishermen.
- Two percent (2%) are unemployed.

1.1.1.3 Level of education

The average level of schooling of the families that belong to the COMANUCO council is between unfinished level and secondary school (Figure 1.4)

Figure 1.4 Level of education

Source: community council _COMANUCO_2018

Forty-four percent (44%) of the people have not finished primary school.

Twenty-eight percent (28%) are graduates.

Fourteen percent (14%) have not finished high school.

Ten percent (10%) have never studied.

Two percent (2%) are technicians.

Two percent (2%) are technologists.

One percent (1%) has a university degree.

1.1.1.4 Guillermo Henríquez Gallo Urbanization

The population of the Guillermo Henríquez Urbanization was the object of resettlement for the project in 2015, at that time 33 families were resettled which were composed of 145 people.

Currently the Guillermo Henríquez Gallo Urbanization has 42 families, for a total of 215 people, which evidences that there has been a significant population growth. According to the community, this is due to the increase in births, and the congregation of several families in the same dwelling. The latter occurs when one of the members of the family, build their own family in the same home as the parents.

- Social infrastructure

The urbanization Guillermo Henríquez Gallo where the population of El Canal village was relocated has 35 houses each with a built area of 49 m^2 that has a living room, kitchen, sanitary unit, 2 bedrooms, prefabricated laundry, plus a free area for future expansion and patios of 49 m^2.

These are brick constructions covered with smooth external plaster and koraza-type main facade paint. The roof consists of a structure of wood and tiles in fiber cement free of materials harmful to health, the doors are made of galvanized sheet gauge 20 and the windows in matt aluminum and sliding glass (Photograph 1.1).

Photograph 1.1 Housing Urbanization Guillermo Henríquez Gallo

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

- Educational infrastructure

When the resettled population lived in the vereda El Canal, they had an educational structure with a wooden structure, and now that they are at the head of the community, they have access to Educational Institutions of the Nueva Colonia district as the Institución Educativa 29 de Noviembre it is a few meters from the urbanization or the Educational Institution Nueva Colonia, in this sense has improved access to formal education that was previously limited.

- Infrastructure in health

In terms of health infrastructure, the community continues to access the care provided in the health center of Nueva Colonia, now with greater facilities because, due to their relocation, they are now closer.

- Recreational infrastructure

Currently the urbanization does not have a suitable area for recreational purposes, however they have a lot that will be used for the construction of a playground and a court. (This project is part of the plan for the improvement of living conditions, which is explained in the chapter of management programs that will be executed when the construction of the project begins).

- Public services

- Aqueduct

The houses of the urbanization have an aqueduct system (Photograph 1.2), the company in charge of supplying this service is Óptima de Urabá S.A E.S.P. The cost paid per month for water service is on average $ 12,000

Photograph 1.2 Aqueduct service counter

Source: Aqua & Terra Consultores Asociados S.A.S, 2018.

- Sewerage

For the treatment of wastewater there is a treatment plant of 50.000 liters, as well as the aqueduct service, this service is supplied by Óptima de Urabá S.A E.S.P (Photograph 1.3).

Photograph 1.3 Residual water treatment plant

Source: Aqua & Terra Consultores Asociados S.A.S, 2018.

- Energy service

All homes have an electrical system properly distributed in three circuits, the network has electrical pipes and boxes properly embedded. The energy service is provided by EPM (Empresas publicas de Medellin) in prepaid service mode, where users according to their needs recharge an average amount of $ 18.000 to enjoy the service for a month. The modality of payment for the energy service was agreed and chosen by the community since it offers greater control over the level of consumption.

- Collection of solid waste

The solid waste collection is carried out by the company Futuraseo with a frequency of twice a week, which has also contributed to improve the living conditions considering that when they were in the village El Canal this service was only provided with a frequency twice a month, which generated problems with the management of solid waste and health.

- Economic conditions

Nowadays, the traditional division of labor in which the man is a provider and the woman takes care of the housework continues to predominate. However, as indicated above, it has been possible to link them in a project of home gardens that has generated positive changes with respect to the perception that women have of their role and the impact they can have on the family economy.

On the other hand, men continue to carry out day labor activities on the banana and cattle ranches, but they have managed to strengthen the artisanal fishing practice, converting it into their main source of income through the different programs that they have accessed thanks to the institutional alliances between the Port, the companies of the sector (in this case FUNDAUNIBAN) and different national and international institutional organisms like USAID, programs through which they have obtained training and equipment necessary for the realization of the activity.

In terms of the practice of artisanal fishing as the main economic activity, a remarkable improvement has been achieved in terms of having the necessary equipment to optimize their work and a constant accompaniment in which they have begun to envision a complete business alternative.

1.1.1.5 GENERAL CONCLUSIONS

Although recently the Community Council - COMANUCO - was recognized as a community council, it cannot be ignored that when it is formed in a context where the population, due to its multicultural nature, has not built clear identity processes on the subject ethnicity, its consolidation process has not taken place properly in a concerted manner within the community, which has generated a process of polarization and has not allowed a definitive step of an organizational model based on the Community Action Boards towards the figure of Community Council of Black Communities. The leaders of two villages of Nueva Colonia and some members of the councils of the urban area are assigned, without leaving these to operate through the figure of the Community Action Board - CAB. It is in two sociopolitical planes, because the CAB

continues to function as a management mechanism, while the Community Council has been operating more from the discursive point of view.

Taking into account the above and recognizing the degree of legitimacy that CABs represent, the project has defined participation strategies from which it recognizes the importance of both actors and therefore has been working hand in hand with both and even other representative bodies, and has managed to generate work tables in which the representative bodies of the area have been able to work together in the planning and construction of projects that result in the well-being of the community.

In practice, there is no evidence of sufficiently strong identity processes for the claiming of ethnic rights in Nueva Colonia, this situation can also be observed in the processes of development, management and ordination of the territory where the rescue for the values or identity processes of the population, are not prioritized and made visible as lines of work in the community. In the same way, the participation of the communities is based on traditional forms of representation predominates, such as the community action boards that do not feel identified with the recent processes of ethnic claim.

Figure 1.5 Zonal Development Plan for Nueva Colonia _ representation instances

Source: Plan de desarrollo zonal de Nueva Colonia 2005-2015

In relation to the collective Territory, at present, the newly constituted Community Council does not have a property ownership structure associated with collective property, among other reasons, because the settlement processes have been the product of migratory phenomena of a very diverse population that accesses the property with strict rigor to the civil laws. Likewise, no internal processes of appropriation of space are identified by the social, economic, spatial and cultural dynamics that are presented, this can be evidenced in the settlement processes of the area and in the zonal development plans that don't give priority to the ethnic issue (See annex 2.2 Plan zonal Nueva Colonia and Figure 1.5)

1.1.2 Community Council of Puerto Girón

1.1.3 Socioeconomic characterization

Puerto Girón, is the center populated of one of the four communities of the municipality of Apartadó located in limits with the municipality of Turbo. In this place, the population of Chocoano origin predominates. Formerly known as Puerto Caribe, this population was formed on the right bank of the Leon river by people from different places; especially from Chocó. The

arrival of population to this zone, occurred particularly, by the demand of labor of sawing wood of the Darien, located in the adjacent zone in which at the moment is the town.

As described by its inhabitants, the main reason to migrate to the area; was the possibility of being employed in the company Maderas del Darien, which at the time had the permission of the Government to carry out forestry in the central area of Urabá.

In this sense, migration unlike other areas of the region was not given by the interest of colonizing land. For this reason, many of the people who came to the area, did it alone and later brought their families.

The fishing activity for these new settlers was alternated with the activities developed in the sawmill. In 1996 was the definitive retirement of the sawmill and a large part of the population looked for work opportunities in the banana industry, that's why it currently represents a considerable source of employment.

Due to the conditions of vulnerability of the settlement associated with flood phenomena, the banana industry has made landfills in the area with dredging material in order to mitigate the flood risk of the settlement. For that reason, the community moved 100 meters inside the river bank where the public spaces were consolidated, as well as the infrastructure needed to inhabit the area.

Due to the initial transfer of the sawmill in the 90s to the urban area of Turbo, there was a population migration to this area; the population that remains in the settlement, in recent years has been dedicated to the development of activities associated with the banana and fishing agroindustry.

1.1.3.1 Housing and Land Tenure

The area of the town center of Puerto Girón has approximately 40 ha. Its population is concentrated mostly near the banks of the Leon river. For the year 2010 the community had not been able to agree to make the application for collective title in application to Law 70 of 1993, for this reason most families only have a piece of land in which they have their home and in some cases, areas for food crops. However, about 20% of the population say they own land in other areas of Urabá and the Department of Chocó.

The individual or collective legalization of the settlement is complex due to the categories of soil protection in the area as it is constituted by wetlands, buffer zones, muddy complexes and forest reserves.

The area of the town center of Puerto Girón has approximately 40 ha. Its population is concentrated mostly near the banks of the Leon river. For the year 2010 the community had not been able to agree to make the application for collective title in application to Law 70 of 1993, for this reason most families only have a piece of land in which they have their home and in some cases subsistence crops. However, about 20% of the population say they own land in other areas of Urabá and the Department of Chocó.

The individual or collective legalization of the settlement is complex due to the categories of soil protection in the area as it is constituted by wetlands, buffer zones, swamps and forest reserves.

The collective titling, "ancestral" occupation is one of the requirements of Law 70 of 1993 for Afro-descendant populations to collectively title their lands. However, the processes of settlement of the black communities present in Puerto Girón, in the last four decades, are due to a great variety of migratory experiences and trajectories of settlement, which do not necessarily coincide with an idea of ancestrality occupation permanent and prolonged of a territory by a relatively stable and implicitly "isolated" community.

The Ministry of the Interior through Resolution No. 049 of June 4, 2013 granted recognition to the Community Council of Puerto Girón nevertheless this Resolution does not refer to the collective titling of the settlement.

- Economic activities

According to the information reported, the main source of employment of the population is in the banana activities, followed by day labor, fishing, informal sales, own crops and hunting activities.

It is highlighted as a source of employment for the inhabitants, the development of activities associated with the execution of the Environmental Management Plans of the Dredging of the lower part of the Leon river executed by Dragados de Urabá. The Community Development Plan 2016-2019 is attached, which contains the Life Plan formulated by the community and the internal regulations of the Community Council of Puerto Girón.

COMPLIANCE PLAN OF SOCIAL AND ENVIRONMENTAL PERFORMANCE STANDARDS - PUERTO ANTIOQUIA

DOCUMENT TITLE:	Auxiliary activities impact assessment and plans – Supplementary material

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1 SOCIO-ENVIRONMENTAL IMPACTS FOR THE AUXILIARY INFRASTRUCTURE

1.1 INTRODUCTION

For the assessment of the importance of the impacts on the environmental components, a methodology was used to prioritize which components of the environment were affected, based on the experience of the professionals and the interaction with the community. This methodology defines if the impact is positive or negative. Where the negatives are divided into irrelevant, moderate, severe and critical. For the beneficial, there are the beneficial and the less beneficial ones. The irrelevant impacts are considered compatible with the environment and do not require specific management measures, the moderates will require management measures and the severe, specific measures. The critical impacts must be reevaluated according to the activity.

It is important to consider that the analysis of environmental impacts that is presented below, includes only the infrastructure that is within the sensitive area of the Puerto Antioquia project, during the licensing process the activities of the project were already evaluated and already have their respective management measures already. The objective is to provide clarity on the possible impacts generated by the use of this particular infrastructure, and to identify, within the measures already designed and authorized by the ANLA, which can be effective to mitigate the possible effects that may be generated.

1.1.1 Socio-environmental impacts related to project traffic (construction and operation)

1.1.1.1 Vía Río Grande - Nueva Colonia - construction phase

The Rio Grande - Nueva Colonia road, as mentioned above, crosses the communities denominated under the same name. This road will be used during the construction of the port for the transport of materials and machinery. The following Table 1-1 shows the identification of the potential impacts to be generated on the communities of Río Grande and Nueva Colonia. It must be highlighted that the use of this road is authorized and that the potential impacts to be generated by its use on the community of Nueva Colonia have already been evaluated and

approved by the environmental authority ANLA (National Licensing Authority). Those impacts have an environmental management plan that can be seen in chapter 11 of the Environmental Impact Assessment. However, the potential impacts that may be generated on the community of Río Grande are evaluated.

Table 1-1 Identification of impacts during construction of the road between Rio Grande - Nueva Colonia

FACTORS	COMPONENTS	MAJOR IMPACTS	ACTIVITY – MATERIAL TRANSPORT
ABIOTIC	ATMOSPHERIC	Alteration of air quality by gases and particulate matter	Moderate
		Alteration of noise levels	Moderate
SOCIOECONOMIC	ECONOMIC	Modification of the income level of the population	Beneficial
		Cambio en la oferta laboral	Beneficial
		Change in labor supply	Beneficial
	ESPACIAL	Alteration of existing infrastructure	Moderate
		Variation in the volume of vehicular traffic	Moderate
		Increase accidentally risk	Moderate

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

For the abiotic component it is identified that the impact to be generated on the quality of air and noise presents a moderate qualification; this is due to the fact that the volume of traffic on the road that connects the community of Río Grande with that of Nueva Colonia will increase during the construction phase of the project. This road is normally traveled by freight vehicles that transport products such as banana and plantain to be shipped and transported by sea lane. However, it is important to consider that, although the vehicle traffic will increase, the generation of particulate material or alteration to the air quality will not be significant because the road is completely paved, which avoids to a large extent generate the proliferation of dust that can generate an alteration of air quality. Likewise, it is expected that during the construction shifts and once the operation of the port begins, the noise levels increase due to the increase in the truck traffic, during the operation it will be a growth that will depend on the cargo volumes that the project start to transport.

As mentioned above, the use of this existing road for the transport of materials during the construction stage, is already authorized by the National Agency of Environmental Licenses - ANLA - through resolution 0078 of January 28, 2016. The above means that the environmental impacts already have the necessary management measures to mitigate and prevent the alteration of the air quality with measures such as: vehicles transporting materials are obliged to cover the material avoiding its suspension and dispersion; all vehicles must comply with legal requirements such as the mechanical technical revision which guarantees that the noise and emission levels are within the Colombian regulatory framework; the implementation of road signage; and other measures that can mitigate these impacts such as the restriction of circulation schedules, among others.

As for economic aspects, the communities of Rio Grande and Nueva Colonia, may see positive changes reflected in their income, labor supply and productive activities, since along the road, mainly in the urban area of Rio Grande, are located several commercial units such as restaurants, grocery stores, pharmacies and mechanics workshops. In addition, with the passage of vehicles and all the needs that the drivers demand, their income and the labor supply can increase and it there may be a change in productive activities.

The existing infrastructure along the road, from Rio Grande to the entrance to Nueva Colonia, is divided into two: 56 inhabited homes and 28 commercial units (farms, pharmacies, workshops, churches, others) (see Characterization).

Of the 56 homes located along the road to access to the port from Rio Grande to Nueva Colonia, 29 of these (52% of the total) are located between 1 to 5 m away from the edge of the via, 22 homes (39% of the total) between 6 and 10 m, 3 homes (5% of the total) between 11 and 15 m and 2 homes (4% of the total) are located more than 16 m from the edge of the road. As for commercial establishments, 11 establishments are located between 1 to 5 m away (39% of the total) and 60% are located up to 100 m.

Although currently the vehicle flow is developed in this way and according to the Transit Study (see Annex 2.3a Estudio de Tránsito) concludes that "mobility is comfortable" and that "In terms of planning of roads in the direct influence area, all the tracks sections, are below the capacity in 2030". It is estimated that some type of deterioration of the way is going to be generated that it'll

require intervention, so the impact is rated as moderate. However, as mentioned by the LTA in its report, "the current road that is intended to be used, meets the requirements for transit."

Additionally, the impact of vehicular of vehicular volume on the Rio Grande- Nueva Colonia highway is considered to be an impact of moderate importance in account of the current and pre-existing conditions in the road between Rio Grande - Nueva Colonia could lead to the generation of secondary impacts, which are listed in Table 1-2. Although the road has capacity for the requirements, the conditions of lighting and signaling are precarious, due to this, there could be increases in the accident rate along the road. However, in order to prevent and avoid such affectations, during the construction of the port and while this road is being used, measures will be developed to avoid potential accidents. Some of the measures include a Traffic Management Plan that include lighting with reflective signs and installation of speed reducers along the road in the Rio Grande sector.

Table 1-2 Impacts generated by the current conditions of the road between Rio Grande - Nueva Colonia

Current condition of the road	Potential impact
Homes close to the road	Increase in the accident rate
Little lighting on the road	Increase in the accident rate
Little signage on the road	Increase in the accident rate
Homes located on the edge of the road	Increase in the accident rate

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

In addition to the use of the Rio Grande - Nueva Colonia road for the transport of materials, an additional route must be used for the transportation of materials from the distribution site or distribution quarry. As mentioned in the description of the project and auxiliary activities, this route is public and is part of the routes designated by the Colombian Government as fourth generation "4G", where there are two lanes for each direction of traffic. These roads lead to the collection sites of materials. There are some measures to avoid accidents which are: For the two population centers, there is a deviation that avoids having to enter with the vehicles through the populated center, as shown in Figure 1.1. In addition, the construction material will be transported covered by tarps or plastics to avoid the resuspension of particulate material and there will be a modern infrastructure of signaling, lighting, safety limit signs,

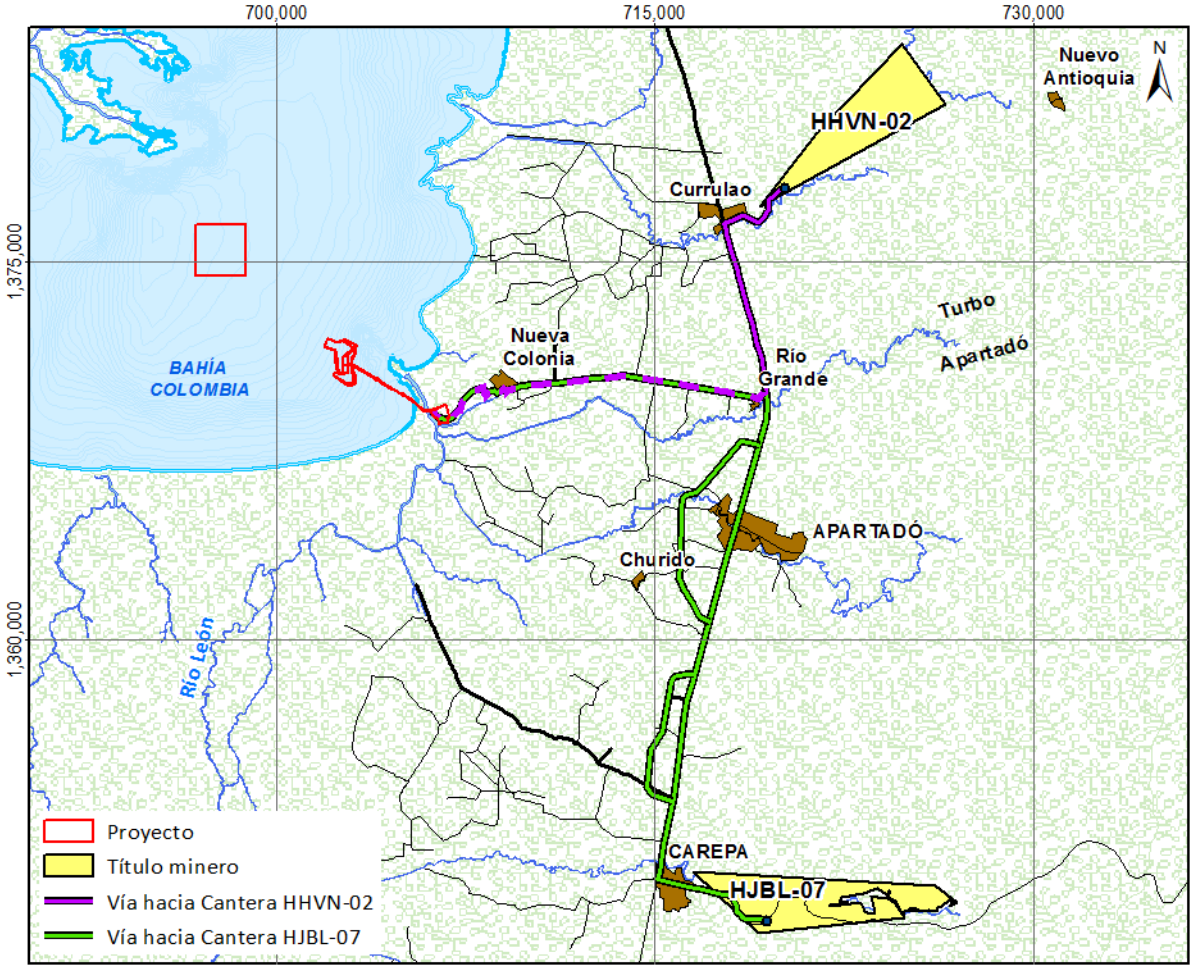

Figure 1.1 Access roads between sources of material and Puerto Antioquia

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

1.1.1.2 Access alternatives during operation

As mentioned above, there are three access possibilities during the operation, all with arrival at the same point in Nueva Colonia. There is one of the access through the existing route that crosses Nueva Colonia that is authorized, nevertheless Puerto Antioquia in order to avoid and reduce the impacts on the community has proposed another alternative. This alternative is surrounding the community until connecting with the licensed road to be built; this way is called variant Nueva Colonia" (Figure 1.2).

The construction of this road would reduce and avoid the impacts to be generated on the community of Nueva Colonia, such as the alteration of the existing infrastructure and potential

accident risks. As regards the biotic component, the affectation would be less, since in this area clean pastures and industrialized crops (banana and plantain plantation) predominate.

It should be noted that the only authorized alternative during the operation is number one, which consists of the use of the existing road between the corregimiento Río Grande and Nueva Colonia. The other alternatives are tracings that are under study and evaluation as possible future alternatives to improve traffic in the sector according to the needs identified by the State of regional growth. The three alternatives seek to reach the beginning of the variant and deviate avoiding New Cologne. Next, the proposed scheme of the Nueva Colonia variant and its point of intersection with the licensed access road is presented.

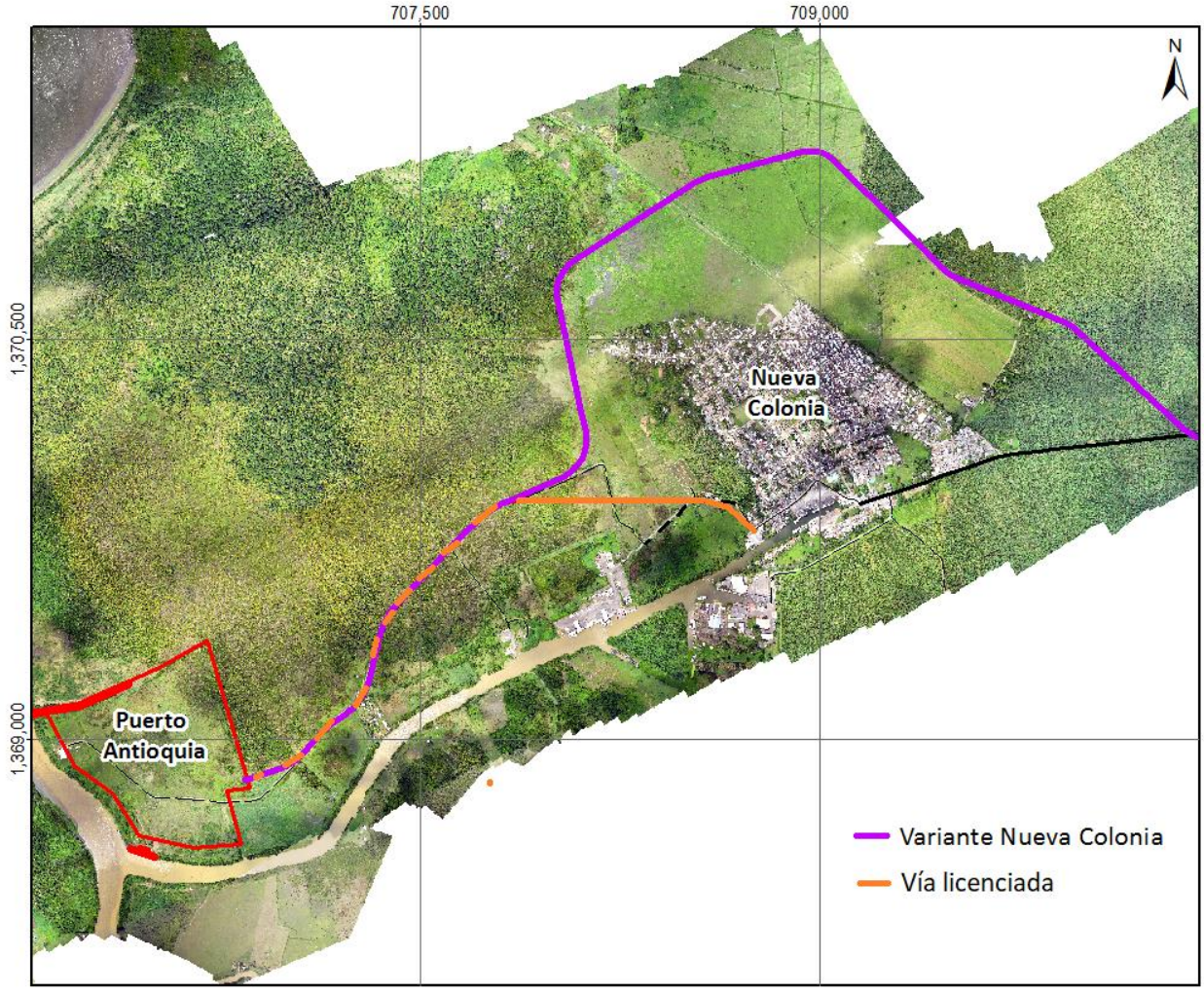

Figure 1.2 Variant Nueva Colonia

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

The following figure shows the layout of the access alternatives for the operation stage.

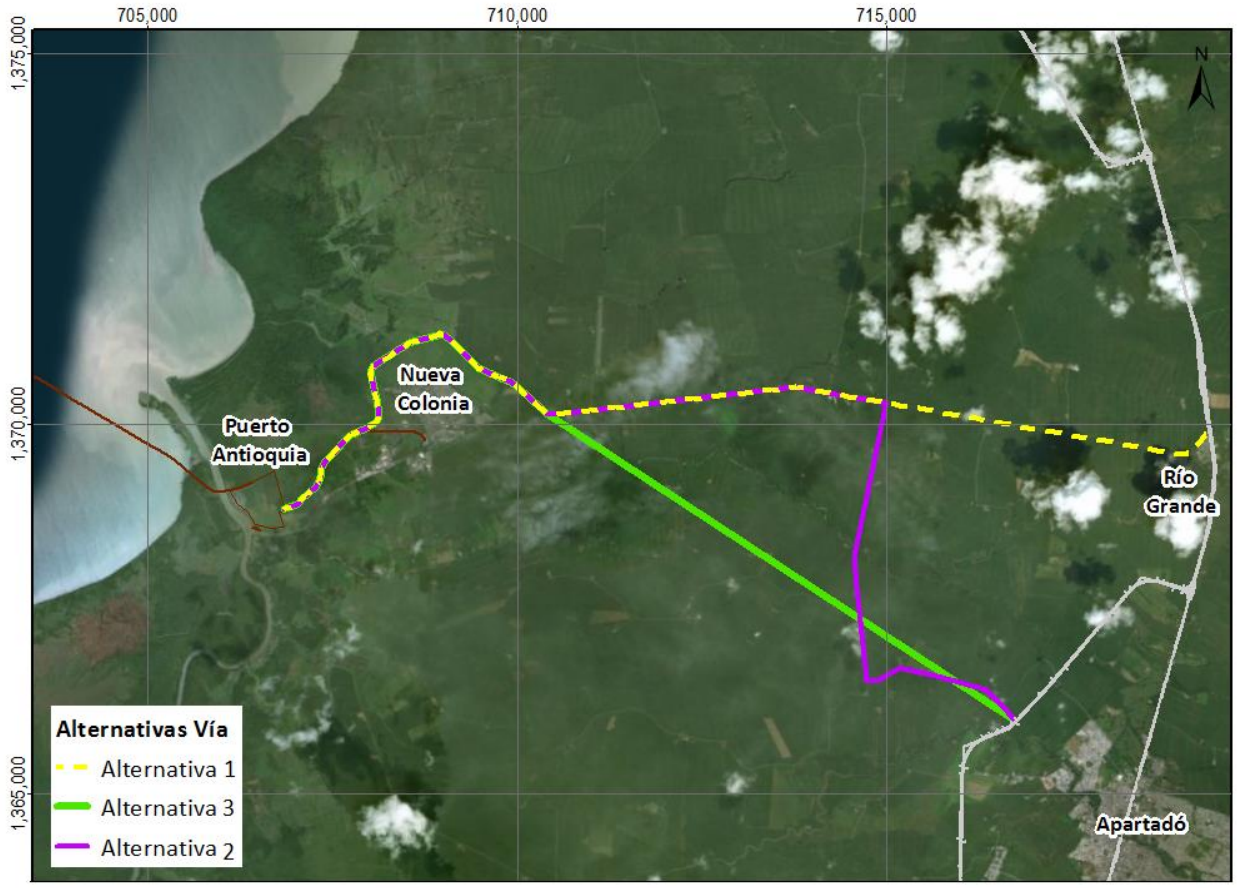

Figure 1.3 Alternativas de acceso durante operación

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Table 1-3 shows the main population centers and the characteristics of each alternative, where it is observed that Alternative 1 crosses not only the town center of Río Grande but also the establishments located on both sides of the road. For its part, Alternative 2 starts in the Apartadó variant and continues along the existing route in the sector known as Palos Blancos, which is approximately 7.7 km long, which connects with the Río Grande Nueva Colonia highway, and finally the alternative 3 that starts also in the Apartadó variant and extends through the Palos Blancos sector to connect with the Rio Grande - Nueva Colonia highway before entering the urban area.

Table 1-3 Main characteristics of each alternative

ALTERNATIVE	POPULATED CENTER	MAIN INTERVENED COVERAGES	TENURE OF LAND	APROXIMATE LENGTH (KM)
1	Río grande	Urban traffic (populated center Río Grande)	Commercial establishments, leased and own homes, banana and banana plantations	9.5
2	No cruza centros poblados	Plantain and banana crops, via Palos Blancos existing used by companies to transport workers	Banana farms	11.5
3	It does not cross population centers	Banana and plantain plantation	Banana farms	7.5

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Once the main characteristics of each alterative have been identified, the main impacts that each alternative could generate are presented inTable1-3.

The potential affectation in the physicochemical, microbiological and aquatic habitat of the continental water, in this case represented in the water currents or channels on the area where these routes are located, is an irrelevant impact since its alteration would be associated to the intervention during construction, temporarily represented in potential changes in suspended solids; in the same way, due to the fact that during the construction or adaptation, no discharges are made in this type of activities, the quality of the water will not be significantly affected. The operation of these routes in any of their alternatives would not generate changes in the physico-chemical, microbiological and continental water habitats. Additionally, the zone of these alternatives is an area of industrialized banana and banana plantations, for which massive spraying campaigns are carried out and even by aerial spraying irrigation, where the water conditions may show traces of agrochemicals.

Table 1-4 Main impacts for access alternatives in the operation

FACTORS	COMPONENT	IMPACTS	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
ABIÓTICO	CONTINENTAL WATERS	Changes in the physicochemical and microbiological characteristics of continental water	IRRELEVANT	IRRELEVANT	IRRELEVANT

FACTORS	COMPONENT	IMPACTS	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
	ATMOSPHERIC	Alteration of air quality by gases and particulate matter	IRRELEVANT	IRRELEVANT	IRRELEVANT
		Alteration of noise levels	IRRELEVANT	IRRELEVANT	IRRELEVANT
	LANDSCAPE	Alteration of the landscape	IRRELEVANTE	IRRELEVANT	IRRELEVANT
BIÓTICO	ECOSYSTEMS	Alteration of continental aquatic habitats	IRRELEVANT	IRRELEVANT	IRRELEVANT
		Alteration of terrestrial habitats	IRRELEVANT	IRRELEVANT	IRRELEVANT
	FAUNA AND FLORA	Variation of vegetation cover	IRRELEVANT	IRRELEVANT	IRRELEVANT
		Change in the dynamics of wildlife communities	IRRELEVANT	IRRELEVANT	IRRELEVANT
SOCIOECONOMICO-CULTURAL	CULTURAL	Alteration of cultural patterns	MODERATE	MODERATE	NA
		Intervention of the archaeological, historical or architectural heritage	IRRELEVANT	IRRELEVANT	IRRELEVANT
	ECONOMIC	Modification of the income level of the population	BENEFICIAL	NA	NA
		Change in labor supply	BENEFICIAL	BENEFICIAL	BENEFICIAL
		Alteration of the value of the property	MODERADO	MODERADO	IRRELEVANTE
	DEMOGRAPHIC	Variation in the number of inhabitants	IRRELEVANTE	IRRELEVANTE	IRRELEVANTE
		Change in the accident rate	MODERATE	MODERATE	BENÉFICO
		Generation of conflicts	MODERATE	MODERATE	IRRELEVANT
	SPATIAL	Alteration of existing infrastructure	MODERATE	NA	NA
		Variation in the volume of vehicular traffic	IRRELEVANT	IRRELEVANT	BENEFICIAL

Source: Aqua & Terra Consultores Asociados S.A.S., 2018. NA: no se genera el impacto

The construction or operation of any of the alternatives would not generate changes in air quality and noise in a significant way, since transit activities are not relevant emission sources nor does it exist in Alternative 2 and 3 sensitive receptors. However, Alternative 1 is located in the outskirts of the vicinity of Río Grande on the northern part of the populated center, which leads to a greater potential for the effects to transcend the receiving community. As for the impact on the perceptual landscape, the alteration would be irrelevant. However, the community of Rio Grande located in Alternative 1 would perceive a greater change in this.

The ecosystems present in the area of alternatives are associated with intervened areas, in this case by intensive human activity through plantain and banana crops. The permanent presence of human activity in the area of these routes, has scared away the large terrestrial mammals, leaving the area for small animals such as snakes, spiders, etc. Regarding habitats, plant cover and dynamics of faunal communities, none of the alternatives would generate a significant impact due to the high degree of intervention.

The cultural patterns of the communities settled along the route and mainly that of Nueva Colonia, which is the most susceptible population center due to the operation of auxiliary activities such as the road to operation, are rooted in the area from approximately 25 to 30 years. Alternative 1, being the one that would intervene mainly in this community, could modify

these patterns to a greater extent. Following minor magnitude, is the Alternative 2 which intervenes the Rio Grande Nueva Colonia road in a sector in which there is the presence of dispersed commercial establishments. Alternative 3 does not intervene population centers, so in this sense, it would not affect the cultural patterns. In the same context, and due to the extensive intervention over time in the area of the alternatives, the archaeological potential is low, presenting an irrelevant impact on this component in the different alternatives.

In the case of the modification of the economic income, either during the construction, adaptation or operation of the alternatives, Alternative 1 presents a beneficial change, since this would intervene unlike the other alternatives, the community of Río Grande, where the demand for vehicles and drivers operating in this way could increase their income, situation that would not occur in the other alternatives due to the absence of communities. However, the labor supply, regardless of the alternative on which the port traffic is operated, could beneficially modify the community of Rio Grande, since it would require personnel for the construction, adaptation or maintenance of the same, which could be with good possibility of this populated center.

The value of the property for a unit of defined economic activity, presents greater stability or certainty of its cost, as would be the case of Alternative 3, where the main activity is the cultivation of banana. Otherwise it could happen on the route of Alternative 1 and 2, where areas inhabited by various industries, commercial establishments and homes are involved, as in the case of the community of Río Grande. In this sense, the greatest impact on this aspect could occur in Alternative 1 and 2.

The demographic dynamics associated with the operation of these possible routes is demarcated over time. The use of any of these would not represent an increase in the demographic dynamics, because in Alternative 2 and 3 the area designated is a private area. However, in relation to accidents, Alternative 3 would represent a positive effect, since it would prevent the transit of vehicles through this area and this route would be destined for heavy vehicles, which added to the proximity of homes and commercial establishments in the Community of Rio Grande would be beneficial. Opposite case would be given in Alternative 1 and 2, where the transit would be through existing roads where these types of communities and commercial establishments are located. Linked to the accident, is the generation of conflicts,

where Alternative 1 and 2 could generate greater disagreement, derived from possible accidents, inconveniences or other events such as the cost of land.

Alternative 1 is the one that could generate the greatest change to the existing infrastructure, since the community of Rio Grande and the various commercial establishments are located on this one. For its part, Alternative 2, although it connects with the existing Rio Grande new Colonia road, does so in a sector where housing density is low. For its part, Alternative 3 would be a route with a new approach to the layout, which would not interfere with infrastructure during the operation. A similar case is made in relation to vehicular traffic, where Alternative 3 would not increase traffic, on the contrary, it would generate a positive effect by reducing the heavy traffic of Alternative 1 and 2 by moving it to a road designed for this type of vehicle.

Finally and as a conclusion of the evaluation of the possible routes to be used during the operation, it is evident that the less impactful alternative would be Alternative 3, since it avoids the town center of Río Grande reducing the affectation and risk in the community.

1.1.2 Socio-environmental impacts related to transmission line

The connection of energy to the national network, required for the operation of the port, begins at the sub-station of Empresas Públicas de Medellín and would follow the alignment parallel to the variant route. The area where the electric line is to be developed (Figure 1.4) is composed mainly of plantain, banana and clean pasture crops (Photograph 1 and Photograph 2)

It should be considered that this transmission line will need to be subject to a new process of environmental licensing which will be developed in parallel with the construction of the port, so it will have its own process of environmental assessment and management measures for the impacts that may arise by its construction. However, this line coincides in part with the route that is projected to access the port (which is currently licensed and has its respective management plans) as shown in the figures and photographs below.

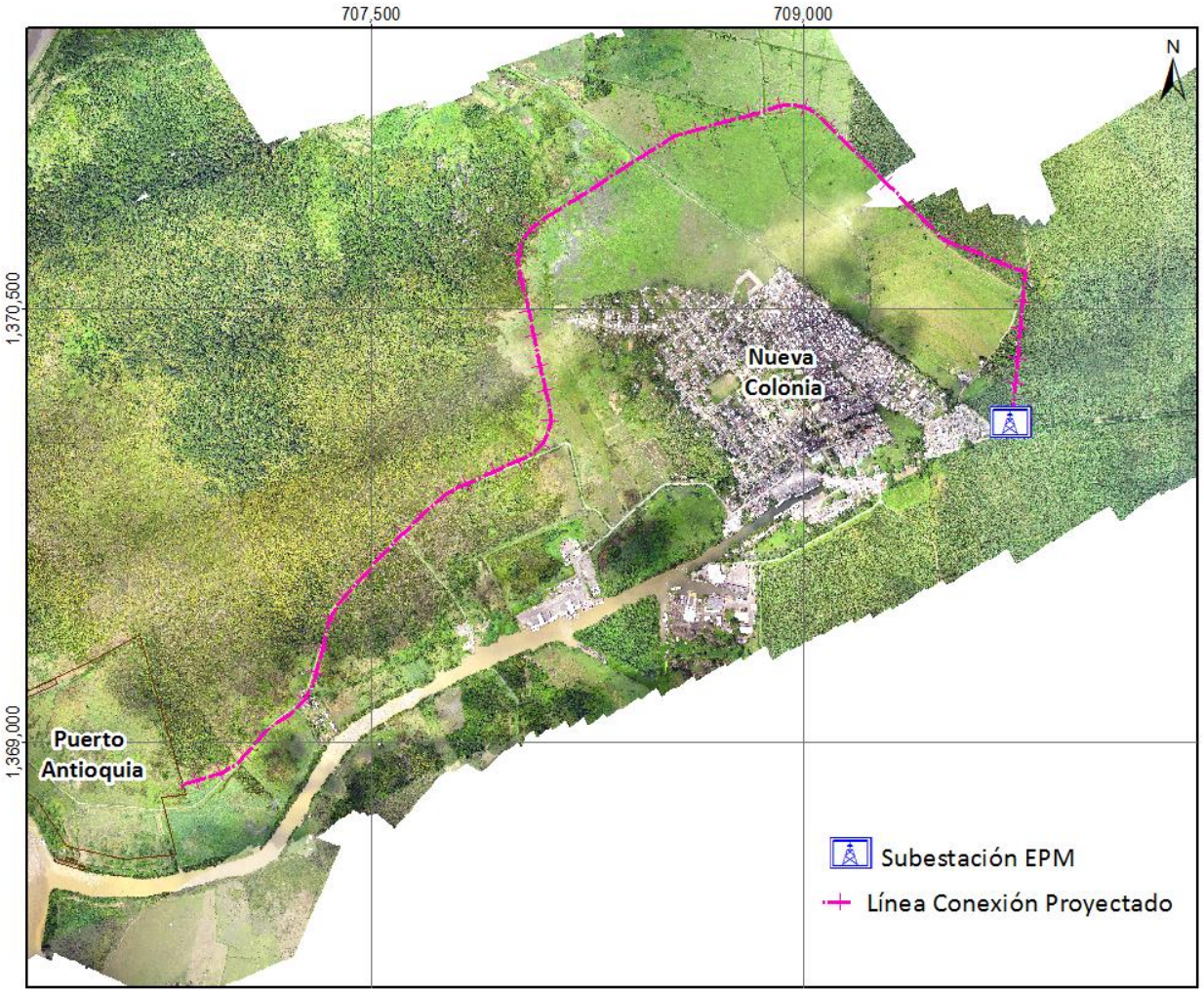

Figure 1.4 Projected connection line

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Photograph 1 Projected electrical connection line - sub station EPM

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Photograph 2 Projected Electrical Connection Line - Port

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

In the Table 1-5 Main impacts of the projected connection lineare presented the impacts associated with the power line that could be reflected by this auxiliary or complementary activity to the project and the description of the assigned rating.

The site where the proposal of the transmission line is aligned with the layout of the planned route and which is already licensed, is located in an area that due to its biotic characteristics is classified according to the environmental zoning made in the EIAl of the project for 2016, as an area of high sensitivity and presence of species of flora and fauna with a certain degree of threat. However, it is important to consider that, since the planned route to enter the port will be built first, the impacts generated by the power line will not be significant, since the necessary measures will have already been implemented to prevent and mitigate the environmental impacts associated with road access of the port. The process of repelling and rescue of the fauna will have already been done by professionals, also the necessary forest use for the transmission line will be minimal, because for the construction of the access road will remove the vast majority of arboreal individuals in this area. In conclusion, the environmental impacts on the biotic environment generated by the transmission line are not significant since there will already be a licensed access road to the Puerto Antioquia project.

On the other hand, as evidenced in the previous photographs (Photograph 1 and Photograph 2), the projected area for the electric line that is outside the zone already licensed, is located on plantain crops and clean pastures, which reduces the potential impact on plant cover and fauna associated with these types of coverage. Additionally, this route surrounds areas of high biotic sensitivity and does not intervene, remaining on coverages intervened as crops and pastures before reaching the point where it meets the access road to the port. The wiring and electrical towers, would generate an impact on the landscape, although of irrelevant importance, this associated with pre-existing conditions where the community currently also has power lines, there is even an energy line that reaches the project area but of lower voltage.

The potential associated impacts on the socioeconomic component, present an irrelevant importance, since the electric line is designed to avoid the surrounding populations, in this case, Nueva Colonia. Potential impact on the archaeological heritage in minimum, since direct intervention on the ground is associated with the construction of power towers or poles, where

the required area does not exceed 25 m^2. As for the economy of the community of Nueva Colonia, it will not receive major modifications associated with the value of the property, since the properties of intervention, as observed in the previous images are related to extensive crops and not of small inhabited properties or properties with infrastructure.

Table 1-5 Main impacts of the projected connection line

FACTORS	COMPONENTS	IMPACTS	CONNECTING LINE
ABIOTIC	LANDSCAPE	Alteration of the landscape	IRRELEVANT
BIOTIC	ECOSYSTEMS	Alteration of terrestrial habitats	IRRELEVANT
	FAUNA AND FLORA	Variation of vegetation cover	IRRELEVANT
		Change in the dynamics of wildlife communities	IRRELEVANT
SOCIOECONOMIC AND CULTURAL	CULTURAL	Intervention of the archaeological, historical or architectural heritage	IRRELEVANT
	ECONOMIC	Alteration of the value of the property	IRRELEVANT
	SPACIAL	Alteration of existing infrastructure	IRRELEVANT

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

1.1.3 Socio-environmental impacts related to workers camp

As many infrastructure projects, there are certain impacts that cannot be completely eliminated, sometimes impacts persist after implementing the management measures designed for their attention, however the port project has always opted to avoid the manifestation of impacts (direct changes from the design / planning of the project) and the reduction of those impacts so that their manifestation is minor with insignificant importance for the environment and people.

Most of the projects of this type require constructive temporary facilities for the shelter of the labor force that will work in the construction of the port infrastructure of the Puerto Antioquia project in the municipality of Turbo, Department of Antioquia. So the evaluation of the possible impacts that can be presented by the temporary installation of the workers camp during the construction phase of the project is presented below.

During the construction phase, the contractor will install a camp next to the platform on land where the following lateral facilities will be located with capacity for 400 workers:

- Contractor offices
- Employers' representation offices
- Personal contractor accommodation
- Labs
- Storage of aggregates
- Concrete batch plant
- Replacements warehouse
- Canteen.

In the Identification of impacts during construction Camp, the identification of the potential impacts to be generated on the communities of Río Grande and Nueva Colonia, which are the population centers closest to the project, is presented. It should be noted that the camp will have the necessary facilities for the attention of the staff that stays there, so it is not expected the continuous departure of the staff housed in these population centers. However, the potential impacts that can be generated on these communities are evaluated.

Table 1-6 Identification of impacts during construction Camp

FACTORS	COMPONENT	MAIN IMPACTS	Activity- Construction Camp
ABIOTIC	ATMOSPHERIC	Alteration of noise levels	Irrelevant
	LANDSCAPE	Alteration of the Landscape	Irrelevant
SOCIOECONOMIC	ECONOMIC	Change in labor supply	Beneficial
		Modification of productive activities	Beneficial
	CULTURAL	Alteration of cultural patterns	Irrelevant
		Tension between employees and community	Moderate

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

For the abiotic component it is identified that the impact to be generated on the alteration of the noise levels presents an irrelevant importance; this is related to the low intensity of the impact, where the potential of affectation is minimal, because the infrastructure to be used is contiguous with the main construction area of the onshore platform, so the noise levels associated with the type of infrastructure and temporary services of the camp may be surpassed by the construction activities of the onshore construction; It is also prudent to note that considering the distance that exists to the populations of Nueva Colonia and Río Grande, from the camp, this temporary facility does not need heavy or unconventional machinery for its development that can generate high levels of noise.

On the other hand, the affectation to the landscape can be defined as the changes that are generated by the presence of elements alien to the original natural and / or artificial landscape, which cause a change in the visual perception of the observer. However, due to the smaller dimensions of the camp works versus the project works which can be identified remotely from some sectors, the impact on the landscape is of irrelevant importance, since the infrastructure of the camp will not be of great importance and will not It contemplates the construction of elements that stand out at a distance that can be perceived by the communities near the project.

In terms of social and economic aspects, both the community of Rio Grande and that of Nueva Colonia, may see positive changes reflected in their income, labor supply and productive activities, since with the arrival of the population that will be housed in The camp, mainly in Nueva Colonia, where commercial units such as restaurants, grocery stores and pharmacies are located, can present a revitalization of the economy due to the demand for goods and services from the floating population.

Within the cultural component, the impact that the work will generate in the lifestyles of the population that inhabits urban and rural settlements close to the project area, will be reflected in the change of jobs and work that have developed in the area as agriculture and artisanal fishing, which although in some sectors is considered subsistence, today the people who practice it carry out other commercial activities to generate alternative income.

In the same way, the presence of infrastructure and the arrival of foreign personnel to it, due to the expectation of labor demand, can generate processes of acculturation due to changes in language, customs, ways of life and the demand for new services. . Additionally, the arrival of

foreign personnel can contribute to the loss of cultural features due to behavior different from the inhabitants of the area, which could cause tensions between the construction personnel and the native population, so it can present an impact with moderate importance if you consider that the camp at its highest operating peak will have the capacity to house 400 workers.

There is a component within the present analysis linked to that interaction between community and workers, difficulties in health and safety issues, this is related to possible sources of transmission of diseases that may affect the population close to the project and the workers, as well as the presence and consumption of narcotics, alcohol and sex trade. As for security, there may be an increase in the risk of illicit activities, which are linked to substance abuse, and may physically affect workers and the population of the communities surrounding the project.

Taking into account the location of the camp in front of the population of Puerto Giron, and the conditions of accessibility and social infrastructure that this population has, it is difficult to identify any type of affectation to this population due to the construction of this infrastructure, since the operation of the camp does not have any kind of physical connection with this population, and the access and circulation of the population housed in the camp is towards Nueva Colonia.

2.1 MITIGATION PLAN AND COMMUNITY HEALTH AND SAFETY MEASURES

This section describes the measures designed within the framework of the Puerto Antioquia project (PAP) to manage the possible risks and environmental impacts of the auxiliary infrastructure.

In addition to the management plans for the auxiliary activities, the environmental management plans approved and required by the port's environmental license must be taken into account, which are summarized in the Table 1-7and Table 1-8.

Table 1-7Management plans required by the Environmental License

Management plans		Previous Phase	Construction	Operation	Closure
PMA-1	Environmental management of temporary and permanent infrastructure works (concrete, pavements, piloting, metalworking, among others)	X	X	X	
PMA-2	Environmental management of vehicles, machinery, equipment, ships and		X	X	

Management plans		Previous Phase	Construction	Operation	Closure
	naval devices				
PMA-3	Environmental management of landfill activities and affirmed		X		
PMA-4	Environmental management of construction materials		X		
PMA-5	Integrated management of hazardous, non-hazardous and special solid waste on land, dock and boats		X	X	X
PMA-6	Environmental management of water resources	X	X	X	
PMA-7	Environmental management of fuels, oils and lubricants		X	X	X
PMA-8	Environmental management for dredging, maintenance and disposal of dredged material		X	X	
PMA-9	Environmental management for the control of atmospheric emissions and noise		X	X	
PMA-10	Land signaling management		X	X	
PMA-11	Environmental management of loading and unloading activities of authorized cargo types			X	
PMB-01	Environmental management program for vegetation cover		X		
PMB-02	Forest management environmental management program		X		
PMB-03	Environmental management program for the management of wildlife and protection of habitats	X	X	X	
PMB-04	Compensation program for biodiversity loss		X	X	
PMB-05	Environmental management program for the hydrobiological communities	X			
PS-01	Environmental education program for personnel linked to the project	X	X		
PS-02	Community information and participation program	X	X	X	
PS-03	Support program for institutional management capacity		X		
PS-04	Environmental education program for the communities in the area of influence		X		
PS-05	Strengthening and management program for artisanal fishing activities	X	X	X	
PS-06	Neighborhood records program		X	X	

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

Table 1-8 Monitoring plans required by the Environmental License

PLANS OF FOLLOW UP AND MONITORING	
SMA-1	Monitoring of water resources
SMA-2	Monitoring of atmospheric emissions, air quality and noise
SMA-3	Monitoring for the integral management of hazardous and non-hazardous solid waste
SMA-4	Monitoring of the handling of fuels, fats and oils on land and on board the dredge and auxiliary vessels
SMA-5	Follow-up and monitoring of the control measures for the deepening dredging of the access channel and final disposal site
SMB-01	Monitoring flora element management plans

SMB-02	Monitoring wildlife management plan and habitat protection
SMB-03	Monitoring of the hydrobiological community
SMS-1	Monitoring program for the cultural and spatial element management plan
SMS-2	Monitoring program for the management plan of the demographic, spatial and political-organizational element
SMS-3	Monitoring program for the spatial element management plan
SMS-4	Monitoring program for the cultural element management plan
SMS-5	Monitoring program for the management plan of the cultural, spatial and political-organizational element
SMS-6	Monitoring program for the spatial element management plan

Source: Aqua & Terra Consultores Asociados S.A.S., 2018

1.1.1 2.1.1 Mitigation plan related to project traffic

The construction of the port will require, as mentioned above, the use of the Rio Grande Nueva Colonia road for the transit of construction materials and machinery. In the same way, this plan must be used, during the operation, to avoid and prevent accidents on the sensitive population. This plan would also apply to the alternative that is defined to be developed in the operational phase of the project. As a result of the advanced evaluation, we obtain a management plan that allows us to prevent and avoid impacts (Table 1-9).

Table 1-9 Training program for the use of roads

ENVIRONMENTAL MANAGEMENT PLAN			**ROADS**
ROAD SAFETY PROGRAM AND CONTROL OF THE ALTERATION OF TERRESTRIAL TRAFFIC			
OBJECTIVES	Design and implement a traffic management plan to reduce the risk of accidents. Establish sensitivity, dissemination and education processes with sensitive communities or recipients in order to prevent accidents on the project's access roads		
AIMS	Aim 1: Install 100% of the proposed traffic signs with the requirements demanded by current regulations. Aim 2: Respond in a timely manner to 100% of requests, complaints, claims and suggestions from road users regarding mobility and connectivity problems arising from the construction and operation of the Project. Aim 3: To develop the pedagogical activities of road safety training for the communities in the project's area of influence.		
MEDIUM	**COMPONENT**	**PRINCIPAL IMPACTS**	**Activity - Transport of materials - road operation**
ABIOTIC	**ATMOSPHERIC**	Alteration of air quality by gases and particulate matter	Moderate
		Alteration of noise levels	Moderate
SOCIOECONOMIC	**ECONOMIC**	Modification of the income level of the population	Beneficial
		Change in job offer	Beneficial

ENVIRONMENTAL MANAGEMENT PLAN			ROADS
ROAD SAFETY PROGRAM AND CONTROL OF THE ALTERATION OF TERRESTRIAL TRAFFIC			
		Modification of the productive activities	Beneficial
	SPATIAL	Alteration of existing infrastructure	Moderate
		Variation in the volume of vehicular traffic	Irrelevant

IMPLEMENTATION STAGE			
Previous activities		Operation	X
Construction	X	Dismantling	

TYPE OF MEASURE			
PREVENTION	MITIGATION	CORRECTION	COMPENSATION
X	X		

ACTIONS TO BE DEVELOPED

Traffic management plan

Prior to the construction stage, a Traffic Management Plan will be implemented (see annex Construction Road traffic Management Plan) with the objective of mitigating the impact on pedestrian and vehicular traffic caused by the execution of construction works on the port terminal and its operation

Dissemination campaigns will be carried out to provide timely information on the work being carried out for the construction of the port, which may generate discomfort to mobility or represent a high possibility of accident for the inhabitants adjacent to the road.

With the objective to carry out an effective traffic management, this traffic management plan will require the support of the respective transit authorities of the municipality, as well as the establishment of inter-institutional agreements with the local authorities and entities responsible for road safety of the municipality of Turbo, in order to ensure the proper development of the road program.

The traffic signs will comply with the requirements contained in the Road Signaling Manual related to uniform devices for traffic regulation of traffic in streets, highways and cycling routes in Colombia. 2015.

During the construction works, traffic control personnel will be available (Stop and Follow) for traffic control for the exit and entry of dump trucks or machinery from the work fronts and the regulations for the transport of heavy machinery will be applied as established in the legislation.

Speed reducers with the following speed limits will be installed on the section of the Rio Grande road:

80 km / h on paved national roads.

60 km / h on rural access roads to work (Road access to work)

30 km / h on roads with rain or poor visibility.

20 km / h on access roads with the presence of communities close to the roadside. (Rio Grande and Nueva Colonia)

10 km / h inside the facilities (offices, floors)

All signs used must remain in good condition.

Accident reports

The project will analyze accident reports on the Rio Grande-Nueva Colonia road and at the intersection of the Rio Grande - National Highway 62 road, taking into account the following information:

- Type of accident: Simple (those incidents involving only one vehicle), Multiple (those involving one or two vehicles and a pedestrian), Run over (encounter between a vehicle and a pedestrian or animal).
- General information about the injured person, the driver or drivers (name, place of residence, telephone

ENVIRONMENTAL MANAGEMENT PLAN	ROADS
ROAD SAFETY PROGRAM AND CONTROL OF THE ALTERATION OF TERRESTRIAL TRAFFIC	

number, reason for being on the road, transport).

- Vehicle documentation.
- Location of the accident (coordinates of the accident).
- Determine the factors that influenced the accident or if it was caused by activities, machinery or personnel of the work.
- Date, time, reason and severity.

Pedagogic training activities in road safety

A training program will be developed for students and teachers from educational institutions of Nueva Colonia and Rio Grande, employees of banana farms located between Rio Grande and Nueva Colonia, drivers of transport companies that cover the routes of Rio Grande and Nueva Colonia and people located on the edge of the road between Nueva Colonia and Rio Grande.

For the training of students, teachers, employees and people located near the road, the frequency will be quarterly during the construction stage and once during the first two years of operation, while for the drivers it will be quarterly only during the construction phase.

The objective of the trainings is focused on the following topics:

- To publicize the representative increase in the transit of heavy vehicles on the national road.
- Use of traffic signals
- Actions to be taken in case of risk situations that may arise with the use of the road.
- To generate a culture of the use of pedestrian crossings as the only permitted and safe means of crossing the track.
- For drivers, there will also be information talks on risk control, regulations and current vehicle documents, compliance with safety policies and respect for the community.

Information and participation

The information process will be supported by a six-monthly distribution during the construction stage of information material that may have a pedagogical function focused on accident prevention and emergency management.

The development of the information and participation program includes the reception of complaints and claims, which may be made orally or in writing, and will follow the established procedure.

PLACE OF APPLICATION
Communities of Nueva Colonia, and Río Grande and scattered housing
EXECUTION SCHEDULE
During the construction and operation phase of the multipurpose port Puerto Antioquia.
RESPONSIBLE FOR THE EXECUTION
Personnel contractors in charge of the construction and operation phase
PERSONNEL REQUIRED
Environmental and Social Management Professional
FOLLOW-UP AND MONITORING INDICATORS

ENVIRONMENTAL MANAGEMENT PLAN			ROADS	
ROAD SAFETY PROGRAM AND CONTROL OF THE ALTERATION OF TERRESTRIAL TRAFFIC				
AIM	VALUE	INDICATOR	RESPONSIBLE	TYPE OF RECORD
Aim 1	100%	$\frac{Señalización\ instalada}{Señalización\ proyectada} x100$	Personnel contractors in charge of the construction stage	Figures or plans showing the location of the signs. Photographic record of the installed signals.
Aim 2	100%	$\frac{Quejas\ y\ reclamos\ atendidos}{Quejas\ y\ reclamos\ recibidos} x100$	Personnel contractors in charge of the construction stage	Registration of complaints and claims received
Aim 3	100%	Stakeholders trained	Personnel contractors in charge of the construction stage	Training record

2.1.2 Mitigation plan related to transmission line

Taking into account that the electric line runs parallel to the variant route, the environmental management associated with it is directly related, which is why they apply the same management plans, both from the Environmental Impact Study, and those projected for the auxiliary activities.

2.1.3 Mitigation plan related to workers camp

During construction, the management of work-related impacts and housing conditions for the camp and the entire workforce of Puerto Antioquia (including contractors and the supply chain) will focus on the establishment of relevant policies and monitoring systems and corrective actions that include:

- Relationships with the community
- Health
- The development of an awareness program on workers' health.
- The development of procedures for the participation of workers in front of communities
- The development of a code of work behavior.

The correct dissemination and socialization of these issues will allow the development of management measures for social and environmental impacts in consultation with the communities that may be affected, for this it must work jointly with the Department of Health and Safety at Work, the Environmental Department, and verify the correct implementation of the relationship plan of the interested parties, mainly with the communities near the construction of the project.

The management and monitoring measures to mitigate the environmental impacts identified should consider the different plans of the Project Management System, taking into account the link between suppliers and contractor for the implementation of the management measures designed in the Management Plan for facilities temporary, designed for the Puerto Antioquia project.

The plan must contemplate the necessary measures to avoid tensions between workers and communities, as is discussed below (Table 1-10).

Table 1-10 Temporary Infrastructure Management Program - Camp

CAMP MANAGEMENT PLAN			**WCMP**
TEMPORARY INFRASTRUCTURE MANAGEMENT PROGRAM - CAMP			
OBJECTIVES	Avoid or reduce negative impacts on the community and maintain constructive relationships between the local communities and the worker camp		
AIM	100% of all workers resident in the camp should be trained in camp management		
IMPACT	**ENVIRONMENTAL SIGNIFICANCE OF THE IMPACT**	**ACTIVITY**	**COMPONENT/ELEMENT ENVIRONMENTAL AFFECTED**
ABIOTIC	ATMOSFERIC	Alteration of noise levels	Irrelevant
	LANDSCAPE	Landscape Alteration	Irrelevant
SOCIOECONOMIC	ECONOMIC	Change in job offer	Beneficial
		Modification of the productive activities	Beneficial
	CULTURAL	Alteration of cultural patterns	Irrelevant
		Tension between employees and community	Moderate

IMPLEMENTATION STAGE			
Previous activities		**Operation**	
Construction	X	**Dismantling**	

TYPE OF MEASURE			
PREVENTION	**MITIGATION**	**CORRECTION**	**COMPENSATION**
X	X		

ACTIONS TO BE DEVELOPED

Community relations

- The contractor shall enforce a camp "closure" policy unless otherwise agreed and approved by the Company. The

CAMP MANAGEMENT PLAN	WCMP
TEMPORARY INFRASTRUCTURE MANAGEMENT PROGRAM - CAMP	

workers will comply with the agreed camp closing times.

- The contractor will implement appropriate measures to maintain a closed camp policy that may include perimeter security fences, security controls and guard houses, monitoring the transfer of goods to and from the fields for smuggling and goods that are not permitted on the premises. The contractor should consult the Project Safety Management Plan.

- The contractor will, as appropriate, provide adequate recreational facilities for workers to reduce the incentive for them to leave the camps during leisure time.

- The contractor should limit workers' interaction with the community when outside the camp, for example, by arranging transportation directly to and from the workplace.

- If members of the community or local businesses express complaints regarding camp-related activities or operations, the Project will respond to the complaint in accordance with the grievance procedure described in this plan and the Community Complaint Procedure contained in the Stakeholder Engagement Plan (SEP).

- Workers shall comply with camp rules.

- The Project should know the environment in which it works and should, where possible, respect local cultural events such as religious, funeral and similar events.

- The Project will provide training to all workers, nationals and expatriates in camp management, including:

  - o An information session on camp rules, including the closed camp policy, behavior among co-workers and the community.

  - o Procedures for dealing with camp-related complaints, worker issues and community issues (under the Stakeholder Participation Plan, SEP)

  - o Orientation to community relations. The aim of this orientation will be to increase awareness of the local area and cultural sensitivities.

Health

- The contractor must comply with the Minimum Health Requirements for Project Implementation and the Health and Safety Management Plan and comply with the requirements and management measures to control communicable diseases within the camps and to external communities.

- Provide specific training in sexual health, including HIV/AIDS awareness and prevention programmer, including voluntary testing, provision of condoms in appropriate locations, etc.

- The contractor should enforce the camp closure policy to limit interaction with the community.

- The Vector Management Plan should be implemented as designed.

- Posters and information sessions will be held to sensitize the workforce and local communities around the worker camps.

Workers' welfare and living conditions

- The contractor must comply with the minimum standards for camp buildings, facilities and services cited in the Colombian Law, processes and standards of Worker Accommodation (IFC).

CAMP MANAGEMENT PLAN	WCMP

TEMPORARY INFRASTRUCTURE MANAGEMENT PROGRAM - CAMP

Covered standards include, but are not limited to:

- o Construction requirements;
- o First aid facilities and services;
- o Sanitary facilities;
- o Entertainment and recreation facilities and services;
- o Communication services;
- o Catering and canteen facilities and services
- o Accommodation requirements; and
- o Laundry facilities

- The entire camp shall operate in a non-discriminatory manner and provide the same level of accommodation and welfare facilities for workers, although distinctions may be appropriate depending on seniority and job classifications.

- The camp will be treated as a closed camp. Camp rules regarding alcohol use and drug prohibition will be followed.

Training, Awareness and Competence

Training is a critical component in raising awareness of the various impacts and associated management functions of the Plan. As such, it is expected that:

- The contractor shall ensure that all personnel responsible for the execution of the tasks and requirements contained in this Plan are competent on the basis of education, training and experience
- The contractor's training activity should be properly documented through a training needs assessment, training matrix/plan and training records.

PLACE OF APPLICATION

Camp population

EXECUTION SCHEDULE

During the construction phase of the multipurpose port Puerto Antioquia.

RESPONSIBLE FOR THE EXECUTION

Personnel contractors in charge of the construction stage

PERSONNEL REQUIRED

Environmental and Social Management Professional

FOLLOW-UP AND MONITORING INDICATORS

AIM	VALUE	INDICATOR	RESPONSIBLE	TYPE OF RECORD
100% of all camp workers resident in the camp receive training in camp management	100%	Participation in training	Director HSE	Monthly
Number of worker complaints related to camp management	80%	Worker satisfaction with living conditions	Director HSE	Monthly

PLAN OF COMPLIANCE WITH STANDARDS OF SOCIAL AND ENVIRONMENTAL PERFORMANCE PUERTO ANTIOQUIA

DOCUMENT TITLE:	Fishery impact assessment - supplementary material

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1 ENVIRONMENTAL EVALUATION COMMUNITY OF FISHERMEN

1.1 INTRODUCTION

In order to identify the socio-environmental effects that the interaction of the project of Puerto Antioquia would have with the communities of interest, an evaluation exercise of the possible risks and impacts to the artisanal fishing activity is developed in this section, the framework of the activities that are contemplated during the execution of the port project. It is important to note that the impacts assessed in this exercise are consistent with those identified in the Environmental Impact Study - EIA - of the project. However, because this is an analysis that deals with fishing activity, and not to all factors of the entire area of influence of the project, for that the valuation might vary from EIA impact assessment.

1.2 METODOLOGY

Once the complementary characterization 2.2 a. Characterization of the artisanal fishing has been carried out, the environmental evaluation is complemented with the possible impacts that the project can generate, especially associated with the fishing communities.

In order to include each and every one of the exercises carried out with the communities of Nueva Colonia and Puerto Girón as well as the technical assessments of the professionals, for the development of this section, the following exercises were carried out: 1. Identification of the current situation without project 2. Definition of potential environmental impacts with project and analysis of environmental impacts.

For the development of these activities, fishermen's communities participated through different participatory workshops and semi-structured interviews.

1.2.1 Identification of current situation without project

The present exercise seeks to identify the activities currently present in the area, especially in the socio-economic and cultural component because the activities and impacts for the biotic and abiotic component do not vary with respect to what is reported in the Environmental Impact Study

with license of the year 2016. This first exercise focuses on the identification of pre-existing conditions.

1.2.2 Definition and evaluation of potential project impacts

Once the pre-existing conditions in the area have been identified, an identification and complementation of the possible impacts of those identified by the communities in the process of the current environmental license is made. In this exercise, the general activities of the project in its construction and operation phase will be taken into account and the intensity of the impact will be evaluated taking into account the participatory exercises carried out with the communities and the technical information that is reported.

The methodology for the identification of impacts was carried out through a matrix built by the socio-environmental team in which a correlation is established between the activities of the project and the impacts that may associate it. For this analysis, the information collected in the field is taken as a basis, which is presented in chapter 2.2 a.Characterization of artisanal fisheries.

1.3 RESULTS OF THE ENVIRONMENTAL EVALUATION _ COMMUNITIES OF FISHERMEN

1.3.1 Identification of the current situation without project

In response to the proposed methodology, in this preliminary stage, the most impressive activities or actions that are currently being developed in the area and that are more relevant to the community were identified; A general description of each of them was established based on the information presented.

1.3.1.1 Maintenance dredging - Canal Nueva Colonia and Río León

It is currently executed by private banana companies present in the area, the maintenance of dredging in the Nueva Colonia canal and the León river. This is permanently developed throughout the year to maintain the navigability of the maritime and fluvial channels of the banana convoys to Bahía Colombia, where the anchors are authorized by the DIMAR to carry out the activity of boarding the convoys to the vessels.

The dredging activities are carried out permanently throughout the year. This activity, although it allows the flow of water and the navigability of the river and the navigation channels, generates

the displacement of the fish, the turbidity of the water and the permanent noise due to the operation of barges and machinery in the area. Although this activity generates actions that affect the environment, thanks to the dredging carried out, the settlement of Puerto Girón and the margins of the river have been consolidated through the provision of fill material resulting from the dredging activities (Photograph 1.1).

Photograph 1.1 Dredging Río León

Source: Dragados de Urabá, 2018

1.3.1.2 Areas of uses and customs

Both the members of the community of Nueva Colonia and the members of the Community Council of Puerto Girón, have as their main practice the banana activities and those associated with artisanal fishing.

To a greater extent, the community of Puerto Giron, due to its low navigation autonomy, permanently carries out fishing activities in the Léon river area. The main purpose of their fishing operations is self-consumption and, secondly, their commercialization.

The hunting of animals is a practice that over the years has been stopped, especially given the restrictions that exist in the area by the Corporation for Sustainable Development of Urabá, Corpouraba, which has the entrance to the center from the city of Puerto Girón, a warning reminding the prohibition of this type of activity, in order to protect the fauna that lives there.

After the end of logging in the region, the extractive models that followed, such as the cultivation of African palm and banana, have turned these agroindustrial sectors into another source of employment for people especially from the community of Puerto Girón, which often they work as laborers in the producing farms that surround the road.

Currently, the board of directors and young members of the community have been working to strengthen the identity of this population, concentrating their efforts on the new generations, among those who have been promoting projects that allow work to rescue cultural practices among young people, such as This is the case of the group of singers made up of young people from the community. At the same time, the board of directors is in the process of building a place they have decided to call ancestral and cultural House, where they plan to work for the rescue and cultural strengthening of their community.

Traditional medicine is another of the cultural traditions preserved by this ethnic community. Whether at the front or at the back of the houses, members of the community tend to grow plants for medicinal purposes. In the same sense, it is still customary to resort to the midwife at the time of giving birth.

For its part, the community of Nueva Colonia does not have many references of appropriation of uses and customs. The spaces are more associated with the town center of Nueva Colonia and places where artisanal fishing activities are traditionally carried out.

1.3.1.3 Agriculture with the use of agrochemicals

The main economic activity in the Gulf of Urabá, is banana and banana export agriculture, which uses for the production of fungicides, pesticides, fertilizers or other chemicals, in order to increase production and eliminate pests that may affect crops. A large percentage of the population is employed in activities associated with banana production (Photograph 1.2). The export of these products generates money in foreign currency for the export of products to several countries of the world, the payment of freights, tariffs and other taxes associated with the production, export and commercialization of the product characterized by the technification of the production in large areas cultivated and managed by people other than the owners, high yields and low added value.

Photograph 1.2. Banana activity _ URABÁ

Source: Fundauniban, 2018

1.3.1.4 Cutting of wood vegetation

Within the area there are timber species, considered of economic importance due to the physical characteristics of the wood they produce, for this reason the forest cover has been over exploited until the population of these species decreases. Such is the case of the cativales which are almost pure populations of the cativo species (Prioria copaifera) that has been exploited in a discriminated manner until almost ending with these communities. The same applies to the mangrove cover, which, despite being declared a regional closure by CORPOURABA through Resolution 76395B of August 4, 1995 and being protected by the Forest Reserve of the Suriquí and León rivers, is carried out discriminatory felling.

For the community of Puerto Girón, the wood cutting activity, as registered in the Development Plan of Puerto Girón 2016-2019, represents the livelihood of 25% of the families of the settlement. In this sense, it is identified as an important economic activity. Due to this situation, through the execution of the environmental management plans of the dredging of maintenance carried out in the river by the banana companies of the area, reforestation days have been carried out with native trees in the surrounding areas settlement.

1.3.1.5 Generation of solid waste

Inadequate solid waste management activities are presented, which are buried and deposited in the open area in areas adjacent to the houses, uncontrolled burning of outdoor waste and floating materials in the area of the pier located at the head of the corregimiento of Nueva Colonia.

1.3.1.6 Transit and mobility areas

In the Corregimiento de Nueva Colonia, there is a high flow of vehicles, mainly in the district of Nueva Colonia, as it is a sector where export-oriented banana companies such as Banacol and Uniban are located, of which the frequency of vehicular flow was evidenced. Heavy cargo and light vehicles for the mobilization of the population.

Puerto Girón has two ways of access, one by water, from the León River, and the other by land, from the Corregimiento of Nueva Colonia.

The access route by water is mostly used by fishermen and people who pass through the currents of the pipes that connect to the León River, although the mobility of their boats is limited by the restrictions that the activity of the area exerts on this area. Embarcadero de Zungo, which was built in the late 60's of the twentieth century, and from which, since then, cargo is transported in tugs that sail along the artificial canal also built by the same time, so that this is finally embarked on the ships that anchor in the sea in the Gulf of Urabá.

In this sense, the community of Puerto Girón coexists with the transit, loading and unloading of vessels that mainly transport banana from the jetties to the anchorage areas defined in the Gulf of Urabá (Photograph 1.4).

Crossing of banana comboy_ Banks of the river León_ Settlement Puerto Girón

Boat tour of the León River and artificial canals

Exit of boat by the mouth of the lion river

Photograph 1.3 Crossing of banana convoy by the León River

Source: Documento técnico Ministerio del Interior _registro fotográfico web 2018

1.3.1.7 Presence of anchoring áreas_Restrictions.

The anchoring area is considered a maritime restricted area published by the General Maritime Directorate. These anchoring areas cover exclusively the authorized route, in case of doing cabotage traffic, or the registered route in case of carrying out international traffic, in accordance with the authorization contained in the administrative act issued by the General Maritime Directorate. (Resolution No. 0372 of 2001 and Resolution No. 540 of October 1, 2012).

In addition, the Resolution makes mention in Transiting at speeds below twenty-five (25) knots in internal bays and access channels and thirty (30) knots in jurisdictional waters. Likewise, control measures of the surrounding area of vessels located in anchoring areas and restrictions associated with night navigation for smaller vessels are determined and adopted.

Due to the foregoing in these areas, no type of fishing activity or transit or stay is allowed. Action that corroborated in the exit of verification No. 2 of the Ministry of the Interior when the coast guard stops the vessel in which the commission of the direction of previous consultation was mobilized given the restrictions of mobility in this area (Figure 1.1).

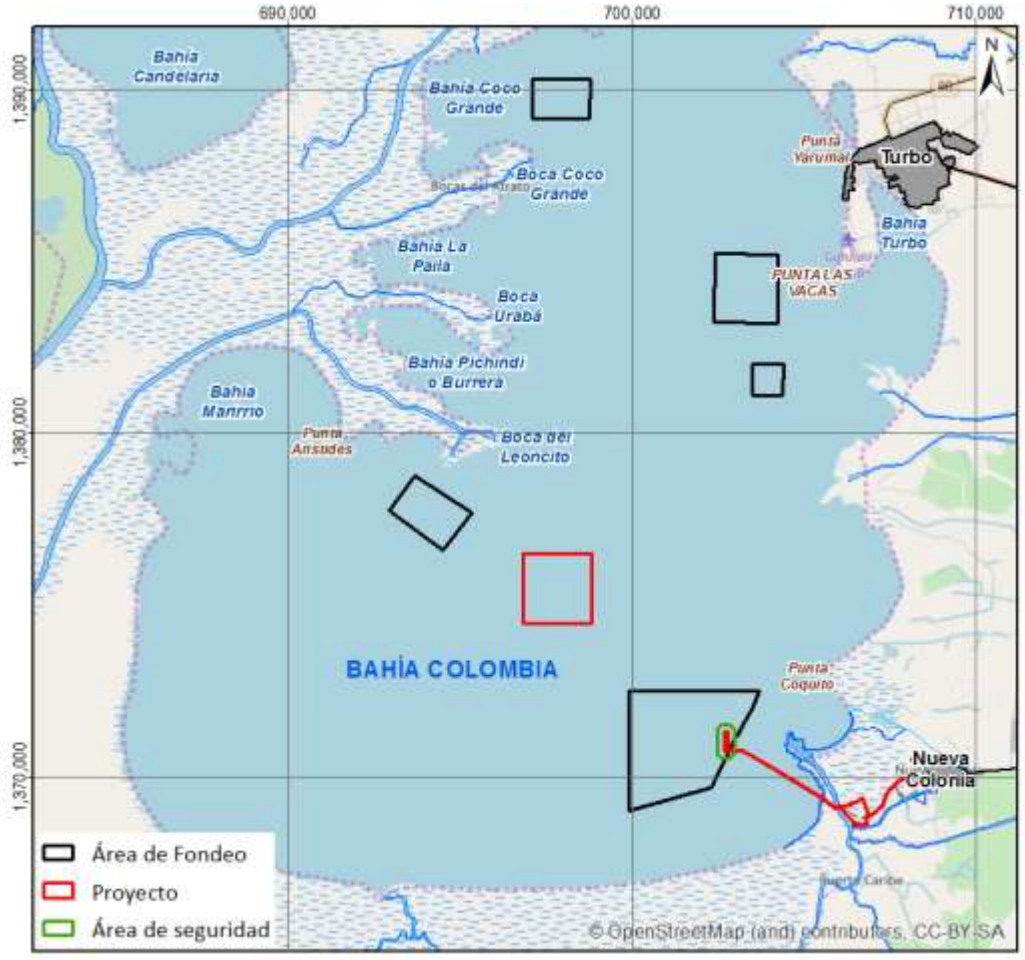

Figure 1.1 Mooring areas Resolution 0372 de 2001

Source: Elaborado por Aqua & Terra con información aportada por DIMAR Turbo a través de Resolución 0372 de 2001

1.3.1.8 Loading and unloading operation in the anchoring area

The operation uses two types of barges: the largest have a capacity of 360 tons, with 36 m long, 9 m wide, 1.7 m draft and can be converted into barges for the transport of 12 containers; the smaller ones have a capacity of 160 tons, with 31 m long, 7 m wide, 1.2 m draft and could transport 4 containers. The loading equipment along the river uses different operating systems, from modern bridge-cranes with variable capacities between 10 and 30 tons suitable for moving containers, up to the endless rail systems (hoists) used to move palletized cargo. There are also fixed and mobile cranes of different capacities. It is considered that the capacity to handle loads in the facilities of Nueva Colonia and Zungo is approximately the following: Capacity to handle

banana 2.5 million tons / year Additional general cargo capacity 0.5 million tons / year (Photograph 1.4).

Photograph 1.4 Loading and unloading operation in the anchorage areas of Bahía Colombia

Source: Registro fotográfico _Uniban _web

The funding area currently used by companies in the area and authorized by the DIMAR has 955.5 ha. It is expected that with the construction of the quay this restriction area will be reduced. In this sense, taking into account the area of intervention of the project and a safety area of 200 m, the restriction zone is reduced 44.3 ha. Additionally, the restriction is lowered, areas for the safe development of transit of smaller vessels are released due to the fact that the ships will be in a fixed position, likewise, and the risk of accidents is reduced, especially for the operation stage due to the departure of the operation of barges.

1.3.1.9 Artisanal Fishery

As documented in the Comprehensive Community Development Plan of Puerto Girón, about 10% of the families carry out artisanal fishing activities. This activity is developed in the rivereña and marine zone. Particularly points are recorded as the output of the river León and the crossing that

is usually the route taken by fishermen to the northern Gulf; the crossing is identified as the edge area of the Gulf of Urabá, this area offers shelter for fishermen. Likewise, shallow areas are identified that may be suitable for the development of harpoon fishing operations that is one of the most used fishing gears by this population.

Fishing gear is also identified as fishing gear used for fishing for commercial purposes and self-consumption.

The fishermen of Puerto Girón and Nueva Colonia, generally move between the mouths of the León and Suriquí rivers; the activity is performed once a week, mostly at night. In a fishing task, species such as Chivo, mojarra, snook, jack and saber are identified.

When fishing activities are carried out in the rivereña zone, species such as guacuco, smooth, snook, bocachico are identified.

Currently, it is reported by fishermen that due to pollution conditions and over exploitation of the resource, fishing has become a "random" activity. The use of fishing nets with small mesh eyes has been affecting activity; the fishermen report that although there have been some sensitization days, they are still not very aware of the damage that is done to the fishing resource.

Likewise, the fishermen affirm that in addition to the control carried out by the maritime authorities that restrict the fishing and circulation activity for the control of traffic in some areas of the Gulf, the presence of the fishing authority is required, controlling the overexploitation of the resource.

It is because of this situation that the community of Puerto Girón is currently in the process of strengthening activities associated with ecological and ethnic tourism. In this measure they are in a process of rescuing the cultural expressions of the black communities of Rivera, not forgetting that the population has undergone a process of miscegenation and a mixture of cultures that identify traits not only of Afro cultures but also traits of the indigenous culture due to the influence and diversity of cultures in the region of Urabá Antioqueño.

The community of Puerto Girón, aware of the current difficulties for the development of fisheries, has prioritized within its Development Plan 2016_2019 activities associated with:

- Implementation of ethno-educational project.

- Increase the educational and cultural level of the population as well as strengthen the Afro culture through their traditional knowledge.

- Improve the living conditions of the population through productive projects

- Project Puerto Girón as a tourist space.

1.3.1.10 Population settlement

The area in which the population of Nueva Colonia is located is characterized by being a nucleated and agglomerated settlement especially in the head of the corregimiento Nueva Colonia in which high levels of Unsatisfied Basic Needs (NBI) are identified due to the provision of services home and social publics in inadequate conditions for the population identified in the settlement.

The settlement of Puerto Girón is located on the right bank of the León River upstream from the area where the terminal will be built on land 1.4 kilometers away from the point closest to the project.

At present, the group of houses where the members of the Community Council of Puerto Girón reside are a reflection of their riverine culture, adapted to the environment in which they live, being the buildings of palatial architecture one of the main characteristics that differentiate them from other communities in the region. The inhabitants of the village of Puerto Girón have electricity, internet and an aqueduct system that supplies them with water. They also have a school that children from nearby villages attend (Photograph 1.6).

Photograph 1.5 Location zone of the settlement of the Community Council of Puerto Girón

Source: Documento técnico Ministerio del Interior_2018

At present, the Community Council has an occupation area that does not have a formal qualification. The settlement area is close to the León River and adjoins the Suriquí Forest Reserve.

1.3.1.11 Relationship with ethnic communities

The Corregimiento of the Nueva Colonia is characterized by the confluence of countless cultures that embody the mixed nature of the Corregimiento; in this sense, incipient bases are identified for the consolidation of a system of appropriation of cultural practices characteristic of the ancestral black culture, through actions of ethnic self-recognition by a minority sector of the population; product of this initiative, recently the Ministry of the Interior issued under Resolution 023 of March 20, 2018, registration of the Greater Community Council of Black Communities of Nueva Colonia in its database. The present newly constituted Council has a self-census of the month of May 2018 in which they report that their community is made up of 974 families that self-recognize as Afro-descendants and members of the Community Council of this population; According to the information reported in the autocensus, 2% of this population, approximately 20 families, are reported as a fishing population of the rural areas of the Corregimiento. It is noteworthy that currently the population of Nueva Colonia is approximately 23,000 inhabitants.

To date, the entity in charge of issuing an administrative act certifying the presence of ethnic communities in the area of influence of the project, has pronounced twice and has made verification visits to the project area establishing the non-presence of this community.

With regard to the community of Puerto Girón, the Ministry of the Interior through Resolution 049 of June 4, 2013, registered the Community Council of Black Communities of Puerto Girón. The community is made up of approximately 467 families, which are located mainly in the path that carries the same name of this community. They have their internal regulations and Community Development Plan. Unlike the population of Nueva Colonia, the present settlement identifies practices of the traditional black culture associated with uses, customs, traditional infrastructure, and traditional medicine, ethno-education programs prioritized in their development plans as well as an organizational structure that recognizes the importance of representation with a differential and autonomous approach.

Although Puerto Girón does not identify itself as a community in the area of influence of the project, due to its proximity to it and the interaction through the community relationship plan; bonds of trust and good neighborliness have been established through which a tacit recognition has been given, the result of which has been the development of a concertation process based on the principles of autonomy, self-determination, respect and mutual trust.

1.3.2 Definition and assessment of potential impacts with project

For the evaluation of impacts, it was sought to perform a validation of the impact evaluation done in the framework of the Environmental Impact Study for the license modification requested in 2015, in this sense the general activities of the project were resumed as the possible actions impactful to be generated that had a direct or indirect impact on the development of social, economic and cultural activities of the communities of Nueva Colonia and Puerto Girón, for this internal workshops and exercises were conducted that resulted in the information reported below . It is noteworthy that the following exercise took into account the main impacts validated or identified by the community due to the fact that the previous evaluation exercise had been carried out in the environmental impact study (See Annex of attendance lists). The information collected with the communities is contrasted with the information gathered in the field to validate the impact or not on the fishermen.

1.3.2.1 Afectation of fishing grounds

For the evaluation of the EIA, this impact was not assessed, because the points identified are in areas that will not be affected by the project, as shown below.

For the purposes of this exercise, the affectation of fishing grounds is defined as the partial or total loss of fishing grounds established by the development of some of the activities associated with the project in the marine area.

The fishing grounds are formally defined by the Autoridad Nacional de pesca y acuicultura – AUNAP and the Instituto Nacional de Investigaciones Marino Costeras INVEMAR; these zones represent the areas in which a greater amount of aggregation of fishing resources can be identified. The identified areas can be seen in Figure 1.1.

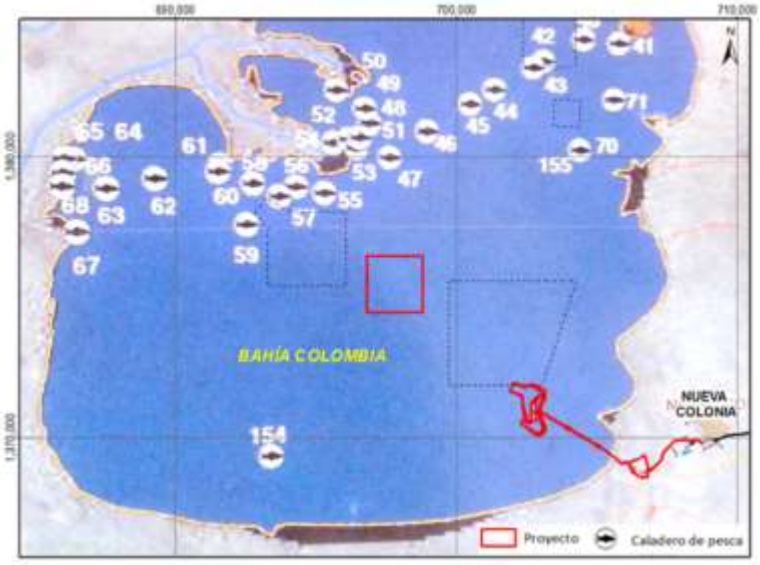

Figure 1.3 Fishing site reported by Instituto de Investigaciones Marinas_INVEMAR_2013
Source: Instituto de Investigaciones Marinas_INVEMAR_2013

In the same way, the fishing areas and areas are identified with the community, where as a result Figure 1.3 is obtained.

Figure 1.2 Fishing sites reported by the community
Source: own preparation with fieldwork and community information

In the project area no fishing grounds are identified that could be affected by the development of the construction activities of the project, so from the technical point of view there are no reported impacts associated with the project on the fishermen of Nueva Colonia and Puerto Girón; this, as shown in the information of the fishing grounds registered by INVEMAR (Figure 1.2), the information collected with the community and fishing effort (Figure 1.3) and the information collected in fishing sampling efforts (see chapter 2.2 a.Characterization Artisanal Fishing Figure 1.9 and 1.12). It is also relevant that the area of the Gulf of Uraba is 241,190 ha and that of the

project viaduct plus the pier are 9.8 ha, which indicates that the project area represents 0.004% of the total area of the Gulf.

1.3.2.2 Change in transit routes

Taking into account the information reported in the evaluation of the EIA associated with the environmental license of the project, this impact is defined as alternation in the transit of vessels. Understood this, as the temporary interruption of the transit of canoes, boats and motorboats, as a consequence of the activities of the project within the area of influence and the presence of machinery and larger vessels in the maritime and fluvial area of the project which could generate variation in the transit routes of the boats that regularly use the area as a route or anchoring area.

The assessment made a moderate qualification, of a negative nature, punctually for construction activities, transport, fabrication and driving of piles, anchors and construction of the bridge and jetty, as well as the installation of conveyor belt and laying.

Taking into account the specific information associated with the transit routes, it is necessary for the vessels that performs activities in the marine and fluvial area, these are divided into three: 1. The route of the convoys and barges that transport products for export from Sungo and Nueva Colonia jetties to the anchorage areas, 2. The route taken by the larger vessels that transport the products abroad, which are identified as larger vessels that enter Colombia Bay through the natural navigable canal to the anchoring areas defined by the maritime authority 3. The routes taken by the smaller craft, largely artisanal, for the development of fishing operations (see Figure 1.1).

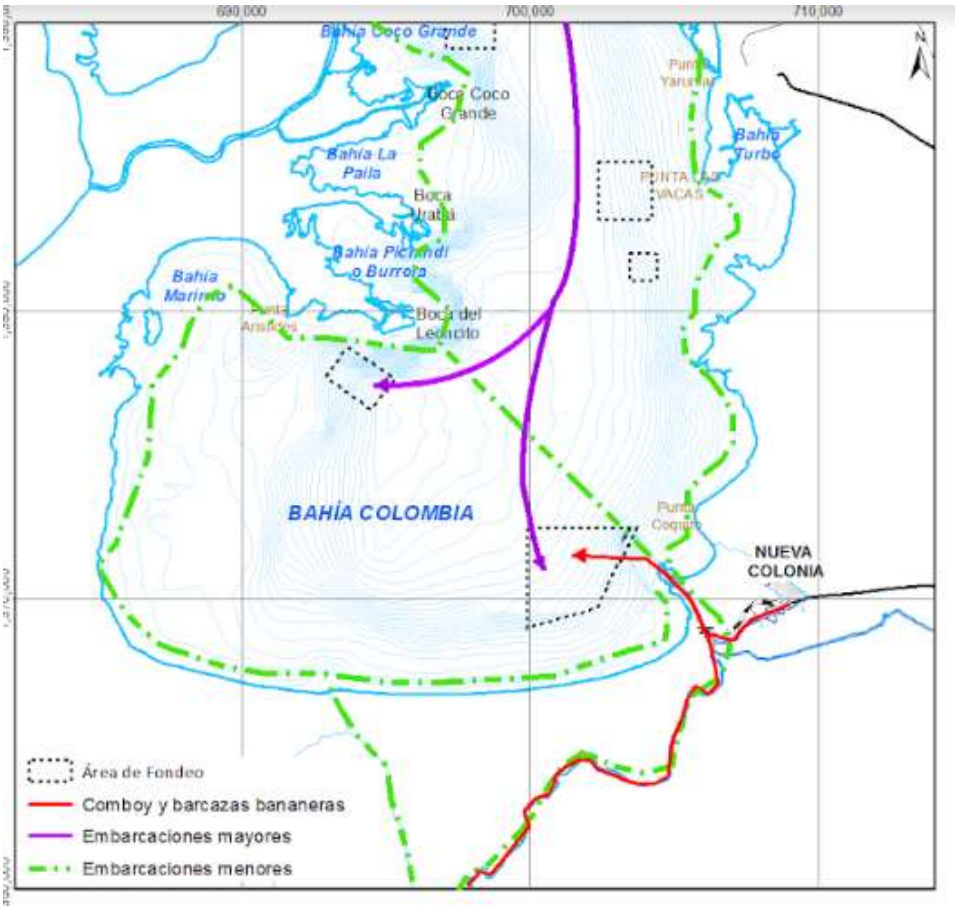

Figure 1.3 Navigation Routes

Source Aqua & Terra Consultores Asociados S.AS. 2018

With the development of the project, the navigation routes of the vessels present in the area will not be affected. Particularly for the smaller vessels associated with artisanal fishering activities, a dynamic variable is identified, because although it is possible to identify certain navigation routes, due to the multiple possibilities that exist and the fishing activity variable, it is not possible to establish permanent navigation routes. On the contrary, the larger boats and the combo boats and barges always make the same displacement to reach the anchoring area. Additionally, with the operation of the port, the Banana Convoys will stop transit through the canals and the León River, which will be positive for the smaller vessels of the fishermen of the area of interest.

Taking into account the primary information reported in the field, the project will not affect the main navigation routes associated with the exit to the marine area identified by the fishermen as the mouths of the León and Suriquí River. However, interference is foreseen in the area contemplated for the construction of the viaduct. It is important to note that in the area where the construction of

the marine platform is planned, there are currently restrictions for navigation and development of fishing activities, as it is within the anchoring area. Likewise, it must be taken into account that the funding operation, with the development of the project, will disappear and, in this sense, the areas that currently present restriction will be reduced.

As mentioned above, the funding area currently has 955.5 ha. It is expected that with the construction of the quay this restriction area will be reduced. In this sense, taking into account the area of intervention of the project and a security area of 200 m, the restriction zone is reduced 44.3 leaving 911.2 ha. This reduction does not indicate affectation, since the development of the port will reduce the anchorage of the convoys, which will leave more areas available.

Likewise, the project has a program aimed at the construction of a transit plan in both the maritime and fluvial zones. It is clarified that the bridge that will be built on the river León will be high enough not to interfere in the transit of the area; The community of Puerto Girón, through its leaders, has stated in different spaces that the completion of the operation of banana barge and combo especially in the river area by the operation of the project, will enable the river for the development of fishing activities, traditions and tourism; because at this time they are developing but with high restrictions due to the risk of accidents that currently occur due to the passage of the banana convoys of private companies present in the area. In this sense, the river as an articulating axis of the community will have less circulation in the operation stage and this is qualified as positive for Puerto Girón.

The vessels that currently reach the Gulf of Urabá have a lower storage capacity than the vessels that are intended to reach the port in the future. It is expected that the operation of the port will allow vessels with greater capacity to reach the area, optimizing the operation so the traffic will be more fluid; Additionally, a traffic plan will be carried out by the Dirección General Marítima and the fishermen, looking for the most suitable alternative to minimize any restriction that may arise.

It is highlighted that during the development of the monitoring in the marine area of the project, fishermen in transit were not identified. Of the 36 surrounding vessels in the Gulf of Urabá, 47% were in transit at a distance of approximately 300 m from the project's marine area.

1.3.2.3 Alteration of artisanal fishing sites

For the evaluation corresponding to the EIA, this impact was not assessed in a timely manner.

Artisanal fishing is defined as an activity developed through traditional techniques without technological tools that allow unproductive fishing for the fishing sector; artisanal fisheries, although they manage resource surpluses, generally these are not of the best quality and therefore their market chains are not very broad. Generally, the resources obtained from fishing activities are destined to self-consumption and retail sale in landing areas.

Occasional artisanal fishing sites are places identified by fishing communities as areas where they can potentially develop their fishing activities but which are not identified as permanent places for the development of such activity. Because of the variable activity and the options that fishermen have depending on the autonomy of navigation, any of these places can be frequented in the development of a fishing site. In response to what was reported in the characterization (see chapter 2.2 a.Characterization of Artisanal Fisheries), approximately 37 fishing sites reported by the fishermen of Puerto Girón and Nueva Colonia are identified. It is noteworthy that, the fishermen of Puerto Girón permanently develop fishing activity in the river, reporting approximately 7 fishing spots.

The community of Puerto Girón, through the president of the Community Council, expresses that the fishermen may be affected by the development of the project in the marine area (bay). The community states that (...) We do not see any obstacles to this, maybe in the part where the port is built there will be some measures that obviously are known as a rule that fishermen will not be able to be there because it can be dangerous to be on the side of a ship, so for security reasons there must be rules, some restrictions, but an obstacle to continue fishing there is not."[1]

With respect to the fishermen of Nueva Colonia, as documented in the characterization exercises and the fishing sites evidenced, a potential impact on the artisanal fishing sites is not reflected.

1.3.2.4 Change in the landscape

The landscape is a natural resource, whose economic value is more related to its abundance or scarcity, than with other parameters, such as the cost of its use. The impacts to the landscape

[1] Porfirio Serna_ Presidente del Consejo Comunitario de Puerto Girón

directly affect the visual quality of the landscape. In this sense, the change or impact in the landscape is related to the modifications to the environment by the incorporation or removal of elements that contribute to visual quality.

The present impact was evaluated according to the following criteria: Visibility, scenic fund quality, fragility, human frequency for the activities of construction of viaduct and pier, construction of the terminal on land, deepening dredging, port operation, maintenance dredging.

Taking into account the point of location of the Terminal on Earth, the viaduct and the maritime pier; the location of the populated centers of both New Colonia and Puerto Girón will not be able to visualize the infrastructure that will be built. In this sense, the population that will have visual access to the works, will be the one that moves down the Leon River downstream where the bridge will be built on the river and on its right margin the construction of the terminal on land reaching the current area of funding the count will be built the maritime wharf.

In response to the information reported in the EIA of the project, the activities associated with the construction stage, such as clearing, cleaning, discarding, and filling of material, and the introduction of port infrastructure will involve reconfigurations in the visual quality and composition of the landscape of the area of influence.

For the operation stage of the port, the community of Puerto Girón assesses this impact in a positive way, since they consider that the fact of having a permanent port landscape, will enhance the development of tourist activities that are being formulated in the area and will give them an added value

For the construction of the viaduct, the existence of the forest reserve was taken into account and, in this sense, its design contemplates the least possible intervention to the existing vegetation cover

1.3.2.5 Reconfiguration of cultural patterns

Cultural patterns are a set of guidelines that govern the behavior of an organized group of people, based on their traditions, customs, habits, beliefs, geographic location and experiences to establish behavioral models.

Considering the results of the characterizations, the populations studied have in common the conformation of organizational structures through instances of representation such as the community action boards for the case of Nueva Colonia, the community councils and social organizations of different nature that have been strengthened in part by the accompaniment of banana companies through processes of corporate social responsibility. Due to its activities highly associated with agricultural exploitation, and because it is a population that comes from other regions of the country, traits of peasant population are identified.

Although people who carry out artisanal fishing activities that have established a direct relationship with the river and the sea are identified, this activity, especially for the community of Nueva Colonia, is carried out alternately or in addition to other activities that is generally associated with the Agriculture.

Bearing in mind that the construction of the viaduct will not hinder the transit of smaller vessels since it will be an elevated structure, below which there may be traffic, in terms of the port operation that includes the transit of larger vessels, it is taken into account that this an activity which fishermen coexist today and with which they have been able to coexist so that an impact on cultural patterns is not reflected.

This impact is related with previous activities in which the hiring of labor and services is found, as well as in the construction activity on land in which it is expected that there will be more hiring of labor, the concern existing in the community in general by the arrival of people from other regions to meet the demands of labor of the port, this in relation to the possible cultural affectations that could be generated from the confluence of diverse cultures. As defined in the EIA, the arrival of foreign personnel could contribute to the loss of some characteristic cultural features of the area. However, it is noteworthy that the region of Urabá has historically been characterized as a region in which diverse cultures converge due to the migrations produced by the boom of diverse economic activities that have been consolidated requiring a high volume of labor. Therefore, it is expected that, given the multicultural features that are observed in the area today, this impact will be moderate.

For the association of ASOPESCATUR of Nueva Colonia the reconfiguration of cultural patterns is positive in relation to the hiring of labor and services in the stage of previous activities, because they maintain that although migrations might occur, the arrival of people in the region also it represents a motivation to strengthen itself culturally.

Unlike the population of Nueva Colonia, the community of Puerto Girón, in addition to the development of fishing activities in the marine area, has direct access to the riveras of the León River from its settlement, which always represents an option for development of traditional activities associated with laundry, recreation, transportation, fishing for children, women, adults and the elderly on its riveras.

Because its settlement is located upstream of the León River, it is not expected to generate an impact on its traditional activities; On the contrary, the population of this community has repeatedly expressed support for and acceptance of the project and the expectation that with the development of the work projects that strengthen the population, its organizational structures, productive projects associated with ethnic tourism can be generated from nature. Likewise, it is expected that when the transport operation by the river León of the barges and banana combo is suspended, the fishing activities in the river will intensify. As a fisherman from Puerto Girón shows, *"By excellence the place where black people fish is the river (...) The river is the life of the black, for us the relationship with the river is fundamental*[2]*.*

1.3.2.6 Modification of the income level of the population

The present impact was valued jointly by the two communities as positive in relation to the previous activities and the construction of the ground terminal since it is considered that in this preliminary stage the highest employment rates will be generated and therefore the income index of the population will be improved. In response to the results of the evaluation conducted in the framework of the EIA, it is important to highlight, in addition to the demand for direct jobs that the port will generate, the generation of indirect jobs, such as food services, lodging, pharmacies,

[2] Expresión de pescador de la comunidad en las entrevistas informales realizadas a la población.

among others, that will increase the labor supply in the area, generating more options for the local population.

It is emphasized that during the different stages of both operation and construction, the respective maritime traffic plans will be carried out jointly with the maritime authority DIMAR and the fishermen themselves, always seeking to minimize any affectation that may arise. Likewise, it highlights the existence of restrictions on circulation in the funding areas as well as preexisting activities that are impacting these activities, as mentioned in the evaluation without a project.

It is considered that deepening and maintenance dredging activities will not generate an increase or decrease in the level of income of the population because this activity requires machinery and highly qualified personnel that is usually hired through foreign companies specialized in dredging.

1.3.2.7 Variation of the region budget

This impact refers to the different port charges that the project must pay for its respective concession and operation, as well as the resources that will be paid into the government's tax burden. These items represent higher revenues for the region. Similarly, the generation of new services, companies and others, as well as the demand for labor, will generate an increase in public collections, which in turn will boost the economy, as will the taxes generated by the establishment of commercial premises that offer emerging services due to port activity.

The community said that this collection is expected to be invested in infrastructure and social services required by the community.

The vision of the community of Puerto Girón in front of the project:

Member of Consejo Comunitario Puerto Girón:

"The vision of the community is to grow and to that extent it is evident that the project will bring development for the region and the country, in this measure for the region it will be fundamental to have a nearby port (...) we as a community have understood that the development of the port It can bring opportunities. Through time it has been possible to establish bonds of trust with the communities, as a representative of this community if in our hands was the decision to build the port we would start already (...) on behalf of the community, we would like the project to be halfway

of construction, however, we understand that making such a large project requires resources and procedures; Believe me, the port will be of much use to nearby communities.

The construction of the Port has not been seen as a disadvantage, but as an opportunity to achieve many things, (...) If the project should need a guarantor, the community is willing to serve as guarantor (...)".

1.3.2.8 Change in the labor supply

This impact has a positive nature and is related to all project activities; On the other hand, fishermen from ASOPESCATUR identified it as a positive impact in all project activities except those associated with dredging, because this activity does not generate a demand for significant labor and is temporary. Here it is important to highlight that the project has acquired commitments with respect to the hiring that consists in that the majority of the workforce to be contracted within the different stages of the project is from Nueva Colonia, Puerto Girón y Rio Grande, this with the intention not only of having an incidence in the improvement of the living conditions of the people of the corregimiento but to mitigate any possible impact that could be generated by the migration of labor from other regions.

1.3.2.9 Alteration of property value

The activities of the project will generate an appreciation of the property in the corregimiento to become a site of interest for the location of companies providing services. For the fishermen of ASOPESCATUR this positive impact is of greater relevance in relation to the previous activities and port operation because when labor hiring is generated, people can arrive from other places that demand a room in the village, and this demand will be reflected in turn in an increase in the values of the property.

1.3.2.10 Modification of productive activities

This impact is related to the change of traditional activities that are developed by the community in the area; in this regard it is necessary to highlight that this impact is identified as positive in relation to the previous activities that include the hiring of labor, taking into account that the possibility of linking to a formal job represents a viable alternative for them including the different problems faced by the artisanal fishing activity due to the scarcity of the resource and other factors;

Likewise, it is stated that they see the development of the project as a viable possibility to acquire labor competencies with different profiles that allow alternatives for future generations, because they state that fishing activity is fluctuating and work in the banana sector although in the region, fair and well-paid salaries have been established, the activity requires great physical effort.

1.3.2.11 Variation of the number of the number of inhabitants

The variation in the number of inhabitants is seen from a positive perspective, where a greater number of people may increase the demand for services that fishing communities can offer, such as the sale of food. Additionally, according to the assessment defined by the community in the framework of the environmental assessment corresponding to the EIA, the arrival of foreign population is not an unknown phenomenon in the area, taking into account that both Nueva Colonia, and the Guillermo Henríquez Gallo and Puerto Giron are pluricultural communities, finding families from different regions of the country, which have a good coexistence and acceptance by the natives of the place.

However, the arrival of foreign personnel could put more pressure on access to public and social services, which could lead to a moderate or severe affectation in the long term. In view of the region's development projections, the municipal and departmental authorities, in partnership with the different companies providing public services at home, are currently carrying out diagnostics of supply and future demand for these services in order to respond to the needs of the community in terms of coverage and access to them.

1.3.2.12 Generation of expectations in the community:

In line with the results of the evaluation developed during the EIA, the fishing communities of interest to the project express high expectations regarding its execution. The fact of being neighbors of the port brings with it the possibility of modifying their labor activity with the objective of achieving greater economic and social well-being. Although this population is accustomed to alternate fishing activity with other types of trades, they manifest the need to train to be able to qualify for the new labor supply that the Port demands.

ACTIVITIES CARRIED OUT WITH COMMUNITIES - ENVIRONMENTAL AND SOCIAL PERFORMANCE ACTIVITIES

Apartadó, june 2018

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1 INTRODUCTION

Since its conception as a development promise for the subregion of Urabá, Puerto Antioquia has been aware of the role played by the Socio-Environmental dimension in its process of materialization. From its earliest stages the project has based its actions on maintaining a constant relationship with all stakeholders. This relationship has been possible through the operation of the SOCIAL AND ENVIRONMENTAL MANAGEMENT PROGRAM - PGSA - executed by Puerto Antioquia through the social environmental team of the company Aqua & Terra Consultores S.A.S.

The Social and Environmental Management Program - PGSA-, incorporated as a basis of action, the Social and Environmental Management Policy that meets the principles of Responsibility, Port Culture, Sustainability, Articulation, Participation and Employability. Within the framework of these principles, at the present stage (preliminary stage of the project) strategies were generated aimed at establishing relations of trust and mutual respect with the different interest groups in such a way that the development of the works can count on the acceptance and total support from different interest groups; especially the communities located in the area of influence of the project.

The activities carried out within the framework of the Social and Environmental Management Program - PGSA - are reported below, executed by the social and environmental team of the company Aqua & Terra.

2 PERFORMANCE OF ENVIRONMENTAL AND SOCIAL ACTIVITIES

2.1 PRELIMINARY ACTIVITIES

2.1.1 Installation of the Social and Environmental Management Office of Puerto Antioquia

As a preliminary field activity, the company Aqua & Terra Consultores Asociados set up the office of -GSA- for the project to carry out the different activities that guarantee a correct environmental and social management in the territory. The office provided by Aqua & Terra has the following equipment:

- 5 workstations (each workstation has a computer, chair, desk)
- 2 Printers
- 2 GPS for field activities
- 1 Work table (Board table with 6 seats))
- 2 Desks

The office of Social and Environmental Management of Puerto Antioquia, is located in the building of the Chamber of Commerce of Urabá, headquarters (Cl 104 No. 101-15 Floor 8 in Apartadó).

This office has operated permanently since November 14, 2017 from Monday to Friday from 8:00 am to 12:00 am, and from 2:00 pm to 5:00 pm.

2.1.2 Set Up Nueva Colonia Mobile Office

A mobile service office was installed in Nueva Colonia, Turbo, seeking to get closer and closer to the population of the township. This space, is located in the facilities of the Fyffes Public Library of Nueva Colonia, has a professional in charge of addressing the concerns of the community on Tuesday and Thursday from 2 p.m. to 6 p.m.

2.1.3 Transport service

For the optimal development of the activities in the field, Aqua & Terra puts at the disposal of the project a vehicle with its respective driver. This vehicle is available permanently for the development of activities in the field.

4x4 vehicle (Renault Duster)

2.1.4 Human Resource for the execution of the PGSA

For the execution of the PGSA, the following Professionals are available for the development of the different activities.

Table 2.1 Human Resource

Position	Profesión
Driver	-
Social professional 1.	Sociologist
Social professional 2.	Anthropologist
Social Coordinator	Socio-environmental lawyer
Biotic Professional	Biologist
Project coordinator	Environmental engineer

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2 SOCIO-ENVIRONMENTAL MANAGEMENT

2.2.1 Management and participation with public, educational entities and foundations with presence in the region.

Below are the different actors with whom interaction spaces have been shared, obeying different criteria of the relationship plan established by the Aqua & Terra socio-environmental team, with the objective of achieving a territorial and regional positioning of the project.

Tabla 2.2 Actores relevantes de la región

TYPE OF ACTOR	NAME
Foundations of banana companies with presence in the area	Corbanacol (C.I Banacol S.A)
	Fundauniban (C.I Uniban S.A)
	CMA Terminal Holdings
	Fundafrut (C.I Banafrut)
Political-institutional actors	Antioquia Governorate
	Turbo Mayor's Office
	Apartado Mayor's Office
	Government House of Nueva Colonia
Sociocultural actors	Public Library
	Educational centers
Environmental Actors	Corpourabá
	DIMAR
	AUNAP
Interinstitutional synergies	Sena-Neo-Comfenalco
Economic actors	Banks lenders

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

As of June 2018, nine (9) meeting and event spaces have been shared with the presence of different entities of all kinds in the territory. Below is a summary of the entities with which more than one meeting has been presented.

2.2.1.1 Meetings held with Banks

Table 2.3 Bank Meetings

Year	Month	Week	Topic	Participating entities
2018	February	29 to 04	General presentation of the Project	Banks/Astris/Davivienda/A&T
2018	February	29 to 04	Economic enclaves tour	Banks/Astris/Davivienda/A&T
2018	February	29 to 04	Inter-institutional meeting	Banks/Astris/Davivienda/A&T
2018	February	29 to 04	Dinner with leaders	Banks/Astris/Davivienda/A&T/Nueva Colonia Leaders
2018	February	29 to 04	Maritime tour	Banks/Astris/Davivienda/A&T
2018	February	29 to 04	Visit banana plantation	Banks/Astris/Davivienda/A&T
			Total Meetings	**6**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.2 Meetings Government House

Table 2.4 Government House

Year	Month	Week	Topic	Participating entities
2017	November	20 to 24	Christmas	Goverment house
2017	November	20 to 24	Matrix of Actors	Goverment house
2018	March	12 to 18	Projects	Nueva Colonia Goverment house
			Total Meetings	**3**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.3 Inter-institutional management Comfenalco-SENA

Bearing in mind that Comfenalco Antioquia is the compensation box chosen for the project, which will be responsible for supporting the issues of employment contracts for different stages, Different activities aimed at the effectiveness of the hiring process have been advanced, among which stand out, the meetings of socialization with the communities of the area of influence, about the necessary profiles and the process of receiving resumes, It's also worth highlighting the work table that has been built between Comfenalco, the port and SENA, with the aim that the latter can generate a viable educational offer for people in the community who do not have the training or skills to apply to the different stipulated profiles and in this way expand the possibilities of hiring

that the highest percentage of employees of the project be from the communities in the area of influence. Among the activities is highlighted the realization of a job fair in Nueva Colonia and Puerto Girón whose objective was to first obtain a diagnosis about the supply of existing labor and the training needs of it, and secondly receive curriculums and guide the community in the process to follow within the hiring route. Below are some of the meetings framed in this initiative, the development of which can be consulted in greater detail in Annex 1.4.

Table 2.5 Conception and socialization panels_ Comfenalco

Year	Month	Week	Topic	Participating entities
2017	November	14 to 17	Christmas	Comfenalco Antioquia
2017	November	20 to 24	Christmas	Comfenalco Antioquia
2017	November	27 to 03	Christmas	Comfenalco Antioquia
2018	February	05 to 11	Employability and training	Comfenalco Antioquia
2018	February	12 to 18	Employability and training	Comfenalco Antioquia/COTEMA/Termo técnica
2018	March	05 to 11	Employability and training	Sena/Comfenalco
2018	March	12 to 18	Employability and training	Sena/Comfenalco
2018	March	12 to 18	Services Fair	Sena/Comfenalco
2018	March	26 to 04	Employability and training	Sena
2018	April	02 to 08	Employability and training	Sena
2018	April	09 to 15	Employability and training	Comfenalco Antioquia
			Total Meetings	**11**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

To date, 1346 people have been registered with the following profiles.

Profiles collected from the resumes delivered by the community

OCCUPATIONAL PROFILES	N°
Administrative assistance	288
Works cleaning/ general cleaning	17
Construction assistant / iron / general black work	257
Drivers and other transporters	67
Administrative coordinators and related	15
Electricians	23
Environmental and territorial management	26
Social management	3
Social, health or related management	52
Sailors / captains / machinists and related	1
Computer occupations	27

OCCUPATIONAL PROFILES	N°
Construction officer / iron / general black works	70
Yellow construction machinery operator	39
Food preparation / waiters	340
Safety and health at work	39
Security and vigilance	36
Basic and industrial welding, plumbers, related works	34
Site supervisor / civil engineers	12
Grand Total	**1346**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.4 CORPOURABA

Corpouraba as the environmental authority of the region leads the 2040 Climate and Peace Plan, within which a working group was formed in which the three port projects of the Urabá region converge as they are; Pisisi port, Darién port and Puerto Antioquia around the construction of a Sustainable Ports Protocol that seeks to monitor the environmental management measures generated by the ports and provide a space for discussion for its continuous improvement. Puerto Antioquia is an active part of the work table convened, the following is a list of the meetings held

Table 2.6 CORPOURABA meetings

Year	Month	Week	Topic	Participating entities
2017	November	14 to 17	Climate Change	Corpourabá
2017	December	11 to 18	2040 Climate and Peace Plan	Corpourabá
2018	March	12 to 18	2040 Climate and Peace Plan	Corporuabá
2018	March	26 to 04	2040 Climate and Peace Plan	Corpourabá
			Total Meetings	**4**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.5 Seventeenth Army Brigade

During the Christmas event held by the Port, for the communities of Nueva Colonia and Puerto Girón, there was the support of the National Army, who supported the theme of children's logistics and recreation, prior to the event, various meetings were held in which The duration of the Christmas events, the routes to be followed and the activities to be carried out in each of the events held from December 16 to December 18 were scheduled..

Table 2.7 National Army Meetings

Year	Month	Week	Topic	Participating entities
2017	December	04 to 07	Christmas	Seventeenth Brigade
2017	December	04 to 07	Christmas	Seventeenth Brigade
2017	December	11 to 18	Christmas	Seventeenth Brigade
2017	December	11 to 18	Christmas	Seventeenth Brigade
2017	December	11 to 18	Christmas	Seventeenth Brigade / JAC Presidents
			Total Meetings	**5**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.6 FUNDAUNIBAN meetings

Keeping in mind that Fundauniban was in charge of the implementation of the resettlement process of the Canal community today inhabitants of the Guillermo Henríquez Gallo Urbanization, and that today continue to lead social support processes with this community, we have been working hand in hand to generate a correct articulation between the processes that are being executed by all the parts in favor of the community.

Table 2.8 FUNDAUNIBAN meetings

Year	Month	Week	Topic	Participating entities
2017	November	20 to 24	Resettlement	Fundauniban
2017	November	20 to 24	Social development projects	Fundauniban
2018	February	19 to 25	El Canal Families Status	Fundauniban
2018	March	05 to 11	Projects	Fundauniban/ Guillermo Henríquez Gallo Urbanization
2018	March	26 to 04	Bananitas Foundation	Fundauniban
2017	November	14 to 17	Bio-Caribe Connection	Fundauniban
2017	November	27 to 03	Bio-Caribe Connection	Fundauniban
2017	November	27 to 03	Resettlement	Fundauniban
			Total Meetings	**8**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.7 Ministry of Interior

Table 2.9 Ministry of interior meetings

Year	Month	Week	Topic	Participating entities
2017	December	11 to 18	Verification visit	Ministry of Interior / Defensory
2017	December	11 to 18	Verification visit	Ministry of Interior / Defensory
2018	January	15 to 19	General presentation of the Project	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	Integration	Ministry of Interior /Augura/Arce&Bernal/Zona Franca/ Nueva Colonia Leaders

2018	January	15 to 19	Santa María Farm Visit	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	Inter-institutional meeting	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	Introductory Meeting C.I Uniban	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	Maritime Tour	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	Land tour	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	Puerto Girón Visit	Ministry of Interior /Augura/Arce&Bernal/Zona Franca
2018	January	15 to 19	General presentation of the Project	Ministry of Interior
2018	January	15 to 19	Maritime Tour	Ministry of Interior
2018	January	15 to 19	Comanuco Meeting	Ministry of Interior
2018	January	15 to 19	Puerto Girón Visit	Ministry of Interior
2018	January	15 to 19	Current maritime traffic restrictions	Ministry of Interior /Dimar
2018	January	15 to 19	Verification visit	Ministry of Interior / Turbo Mayor's Office
2018	January	15 to 19	Information request Puerto Girón	Ministry of Interior / Apartadó Mayor's Office
			Total Meetings	**17**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.1.8 University of Antioquia

Table 2.10 University of Antioquia Meetings

Year	Month	Week	Topic	Participating entities
2017	November	20 to 24	Fishing	University of Antioquia
2017	November	27 to 03	Entrepreneurship	University of Antioquia
2017	December	04 to 07	Entrepreneurship	University of Antioquia
2017	December	11 to 18	Fishing	University of Antioquia
2018	February	19 to 25	Entrepreneurship	University of Antioquia / Microenterprises of Colombia
2018	March	26 to 04	Fishing / Educative offer	University of Antioquia
			Total Meetings	**6**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

Below is a summary of the entities with which different activities have been developed throughout the implementation of social and environmental support by Aqua & Terra.

Table 2.11 Meetings with different entities

Year	Month	Week	Topic	Participating entities
2017	November	14 to 17	Work schedule	Socio-Environmental Team
2017	November	14 to 17	Training	FESU and Educational institution Nueva Colonia
2017	November	27 to 03	Resumes	Comanuco
2017	November	27 to 03	Project socialization	Community

Year	Month	Week	Topic	Participating entities
2017	December	11 to 18	Local development	University-Company-State Committee
2017	December	11 to 18	Project general information	ONF Andina
2018	January	02 to 07	Socio-Environmental Policy	Socio-Environmental Team
2018	January	09 to 14	Verification of life conditions	Vereda El Canal
2018	January	22 to 28	Projects	Urabá-Darién Caribe Tourism Corporation
2018	January	22 to 28	Projects	Urabá-Darién Caribe Tourism Corporation / Puerto Girón
2018	January	22 to 28	Project general information	Neo y Aliarse
2018	February	05 to 11	Diagnosis	Neo
2018	February	12 to 18	Project general information	Medimas
2018	February	12 to 18	Projects	Nueva Colonia Women Association
2018	February	12 to 18	Project general information	Prosalud
2018	February	19 to 25	Project general information	Local companies / USAID
2018	March	05 to 11	Tour project site	EPM
2018	March	12 to 18	El Canal Families Status	House owner (Urbanización Guillermo Henríquez Gallo)
2018	March	26 to 04	Projects	Corbanacol
2018	March	26 to 04	"Justice for a sustainable peace" program	USAID
			Total Meetings	**20**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.2 Social management communities

With the installation of the office in the month of November in the municipality of Apartadó and the mobile office of Nueva Colonia, work has been done to strengthen the project-community relationship, establishing trust among the inhabitants of the area of influence of the project and the company responsible for developing the port project, this has been possible through the implementation of the guidelines contemplated in the port's relationship plan, the result of which has been reflected in the acceptance and support by the communities towards the project.

Among the activities highlighted is the attention to the community through the offices located in Apartadó and Nueva Colonia, designed to provide relevant information about the process and receive PQRS, Regarding the latter, it is highlighted that during this previous stage no PQRS has been received from the communities.

It is very important to highlight that with the four interest groups defined in the relationship plan (Community of Nueva Colonia, Guillermo Henríquez Urbanization (with its Association of

fishermen ASOPESCATUR), Puerto Girón and fishermen of Nueva Colonia (APEANCO) a series of work tables have been set up with the objective of constructing in a participatory manner specific lines of action for social responsibility of the Port with the communities, the result of this process so far is the preparation of some draft agreements that are being evaluated with the different communities. The following will be a general description of the meetings held with each of the mentioned actors.

2.2.2.1 Community Action Boards Nueva Colonia and COMANUCO

With the aim of celebrating the Christmas holidays, and making a special relationship with the community, the Social Team of Aqua & Terra concentrated its efforts on generating spaces based on a model of participation and familiarity that will bring joy to the children of the community. This same exercise has been consolidated as a kind of tradition for the Port, since it already has an antecedent in the previous years for the celebration of Christmas.

So, with the aim of multiplying the impact, of continuing to build social fabric in the community and, of course, of contributing to the improvement of the quality of life of the population, it was decided to make this an initiative engendered in multilateral support to ensure that the scope of activities covered a large part of the area that interacts in one way or another with the Project. Under this logic, the efforts were aimed at expanding the spectrum and bring the Christmas holidays not only to the neighborhoods of the corregimiento of Nueva Colonia, but to thirteen (13) of their veredas as well as to the Community Council of Puerto Girón, belonging to the municipality of Apartadó. The celebration of Christmas for the year 2017 represented a beneficiary population of more than four thousand children between one and ten years of age who received the arrival of the Christmas “Novena” with an “Aguinaldo” from the Port.

Table 2.12 Leader Meetings Nueva Colonia

Year	Month	Week	Topic	Participating entities
2017	November	14 to 17	Christmas	Leaders
2018	January	22 to 28	Work table	Nueva Colonia Leaders
2018	February	12 to 18	Update	Nueva Colonia Leaders
2018	February	19 to 25	Employability and training	Nueva Colonia Leaders
2018	March	12 to 18	Employability and training	Nueva Colonia Leaders/Sena/Comfenalco
2018	March	26 to 04	Projects	Nueva Colonia Leaders
2017	November	14 to 17	Christmas	JAC Presidents

2017	November	20 to 24	Christmas	JAC Presidents
2017	December	04 to 07	Project general information	JAC Presidents
2017	December	04 to 07	Christmas	JAC Presidents-Veredas
			Total Meetings	**10**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

The events that took place had the participation of more than 4,500 people among young people, women and children; Aqua & Terra Consultores Asociados has been linked in different cultural events, as well as accompanying the community of the project area for the expression of their traditional festivals. In the month of November, accompaniment to the cultural activities of Nueva Colonia was carried out within the framework of the November Festivities.

During the process carried out with the leaders of Nueva Colonia, two key actors are recognized with whom they worked hand in hand; The Communal Action Boards and the Council of Black Communities of Nueva Colonia.

2.2.2.2 Fishermen's Association of Nueva Colonia APEANCO

In the same way, continuous work is carried out with associations of artisanal fishermen. Association of Fishermen and Farmers of Nueva Colonia (APEANCO)

Table 2.13 APEANCO Meetings

Year	Month	Week	Topic	Participating entities
2017	November	14 to 17	Project general information	APEANCO
2017	November	14 to 17	Productive projects	APEANCO
2017	November	27 to 03	Fishing	APEANCO
2018	January	22 to 28	Work table	APEANCO
2018	February	19 to 25	Projects	APEANCO/University of Antioquia/ Secretary of Agriculture of Antioquia
2018	March	05 to 11	Characterization workshops	APEANCO
2018	March	12 to 18	Employability and training	APEANCO/University of Antioquia
2018	March	26 to 04	Characterization workshops	APEANCO
			Total Meetings	**8**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.2.3 Guillermo Henríquez Gallo Urbanization and ASOPESCATUR

Meetings with the Association of Artisanal Fishermen of the Guillermo Henríquez Gallo Urbanization (ASOPESCATUR).

Table 2.14 ASOPESCATUR Meetings

Year	Month	Week	Topic	Participating entities
2017	November	27 to 03	Characterization	ASOPESCATUR
2018	January	22 to 28	Work Table	ASOPESCATUR
2018	March	05 to 11	Characterization workshops	ASOPESCATUR
2018	March	12 to 18	Impact workshops	ASOPESCATUR
			Total Meetings	**4**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

Next the meetings with the community in general of the Guillermo Henríquez Gallo Urbanization.

Table 2.15 Guillermo Henríquez Gallo Urbanization Meetings

Year	Month	Week	Topic	Participating entities
2018	January	02 to 07	Projects	Guillermo Henríquez Gallo Urbanization
2018	February	19 to 25	Entrepreneurship	University of Antioquia/ Microenterprises of Colombia
2018	March	26 to 04	Projects	Guillermo Henríquez Gallo Urbanization
2018	April	02 to 08	Management	Guillermo Henríquez Gallo Urbanization
			Total Meetings	**4**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.2.4 Puerto Girón

Table 2.16 Puerto Girón Meetings

Year	Month	Week	Topic	Participating entities
2018	February	29 to 04	Delivery of school kits	Puerto Girón/Tourist Corporation
2018	March	05 to 11	Review of agreements	Puerto Girón
2018	March	26 to 04	Review of agreements	Puerto Girón
			Total Meetings	**4**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.3 Update and characterization of communities in the area of influence and areas of interest of the project

During the time of implementation of the social and environmental management system, a process of updating the characterizations of the fishermen of APEANCO and ASOPESCATUR, as well as the communities of Puerto Girón and Riogrande, was carried out, as well as complementary impact evaluations associated with them, Table 2.14 and Table 2.15 show the dates of completion of these activities with APEANCO and ASOPESCATUR. Below in Table 2.17 the activities and dates of completion of the complementary characterization activities of the fishing community of Puerto Girón and the community of Riogrande are observed.

Table 2.17 Complementary fishing characterization activities

Year	Month	Week	Topic	Related community
2018	Mayo-Junio	31 al 07	Characterization workshops	Puerto Girón Fishermen
2018		02 al 08	Monitoring of the maritime area of the project	Nueva Colonia and Puerto Girón Fishermen
2018		02 al 07	Wharves monitoring Puerto Girón and Nueva Colonia	Nueva Colonia and Puerto Girón Fishermen
		31 al 08	Application of characterization sheets	Riogrande
			Total days of characterization activities	**9**

Source: Aqua y Terra Consultores Asociados S.A.S., 2018

2.2.4 Current status of construction and conclusion of agreements with communities

Agenda Meeting months of May and June Meetings and workshops for final agreement	
May 30 of 2018	**Review of lines of work and agreements Nueva Colonia**
Objective: Review of the agreement draft, community of Nueva Colonia fishermen. Two workshops were held in different spaces with the leaders of Nueva Colonia through the representatives of the community action boards and fishermen. With each group, draft agreements that were being structured were reviewed. **Key points fishermen meeting:** -Consideration of complementation of artisanal fishing information: In this regard it is recalled that with the community of Puerto Girón and Nueva Colonia an information complementation exercise is being carried out, however it is agreed to include in the draft agreement, a previous activity associated with the complementation of information before the start of construction. -It is agreed to reformulate the aquaponics project: It is agreed that for the success of the process a feasibility stage is previously required in which it is verified that the formulated project is viable. In this sense the projects will not be confined to the theme of aquaponics.	

-Review of job profiles: Review of training processes with SENA to support certification by competences. Within the framework of the Community Development Plan of Nueva Colonia, information is given on courses that are currently being offered through SENA.

- Replacement of equipment for artisanal fisheries: An item is included for the study of the needs of the fishing population.

(Annex audio reunión _acta_listado de asistencia)

May 30th 2018	**Review of lines of work and agreements Nueva Colonia**

Objective: Review of draft Agreements of the Coalition, community of Nueva Colonia fishermen.

Key points meeting with community in general

- Presentation of the new Social Manager of the Puerto Bahía Colombia de Urabá project
-General review of draft agreements. Agreement of lines of work General presentation of draft agreement resulting from the different working groups that have been done with the community.
-Review of the background of the conciliation process
-Inclusion of three additional points to the agreed ones
-Background check and relationship process
-Environmental education. An activity is attached to the act associated with environmental education and management for the recovery of the Los Guerreros spout.
- A review by the leaders and socialization of the communities is agreed to close the agreement stage.

June 2nd 2018	**Review points of agreement Puerto Girón**

Objective: Meeting to review agreements with the community of Port Girón

- The board of directors of the Community Council of Puerto Girón participates in the revision of the Ethnic and Ethno-cultural Tourism Plan.
- Review of draft agreement / inclusion and adjustment of lines of work
- Review the exchange experiences of ethnic tourism community projects to strengthen the inclusion plan
- Strengthening the fishing community
- Inclusion of territorial focus in the development of the project.
- Articulation of land use plans, watershed management plans

It is agreed to hold a meeting with the general assembly for June 4 to approve the agreement by the community that generally contains the following points:

- Design and construction of tourist boardwalk and associated facilities.
- Community strengthening for the provision of tourist services (Training and generation of skills and competencies).
- Strengthening the agricultural and fishing association of the Community of Puerto Girón. Labor link for the implementation of the Project Biodiversity Loss Compensation Plan.

(Attached borrador de acuerdo_ Listado de asistencia_ audio de reunión _Presentación)

June 4th 2018	**Review and approval of points of agreement_Puerto Girón**

Objective: Review and approval of agreement
The present meeting, had the participation of the general assembly (community) and the board of directors of the Community Council of Puerto Girón.

In the present meeting:

- The general presentation of the points concerted to date with the Community Council of Puerto Girón is made
- Autonomous space is requested by the community to discuss the points of agreement.
- A counterproposal for the inclusion of aspects associated with artisanal fishing, educational infrastructure and housing is brought by the Community Council.
- The agreement is approved by the members of the board making the specific additions of these last three points discussed.

(See annex_ acta de reunión listado de asistencia)

June 5th 2018	Meeting to review agreements_of Nueva Colonia

Objective: Review of points of the agreement that is being concluded with the fishermen of Nueva Colonia through the fishermen's association APEANCO

It is approved to add the following points to the agreement:
- Development of a diagnosis that complements the exercises that have been done with fishermen.
- Include a training process for this community in the framework of the actions of the development plan of Nueva Colonia, which is the general agreement with the entire community.
- Review the possibility of other initiatives other than the aquaponics project.

(Attached listado de asistencia y acta)

June 6th 2018	Meeting _Community concerns

Objective: Resolve the concerns generated by the community regarding the relationship process and the proposal that was built together.

The activities developed in the framework of the project relationship process were explained again.
The thick lines of the agreement were explained

June 9th and 10th 2018	Autonomous space of the communities of Nueva Colonia

Objective: Discussion meetings and draft proposal construction by the community

Put to consideration of the community in general

Autonomous Space Meeting_ Community participation in general Community Action Boards, Community Council, Turbo District Council Officers, Living Forces and natural leaders of the Corregimiento for public discussion of the proposals made in the agreement.

(Attached listado de asistencia)	
June 14th 2018	**Nueva Colonia Meeting**
Objective: Conformation of a work committee by the community Conformation of a committee with the participation of the community action boards through their representatives, the Community Council of Puerto Girón, natural leaders and living forces of the corregimiento to review and deliver the final proposal of agreements for the project with the endorsement of its leaders.	

2.3 ACHIEVEMENTS

allowed to know in depth the social and economic dynamics of the actors identified in the project. In this way, assertive interventions have been achieved with the different groups, minimizing the degree of uncertainty that the expectation of the port project can generate..

The constant accompaniment of the existing social development processes in the area of influence that are transversal to the project have generated a climate of trust and legitimacy of the project, that will allow in the medium and short term that the interventions that take place in the framework of the construction of the project have high acceptance by the communities.

Social work has allowed to raise and implement actions of information, communication and interaction with stakeholders that allow the management and mitigation of social and environmental impacts within the framework of the Social and Environmental Management policy of the Port.

Through the constitution of this work team, progress has been made in closing socio-environmental gaps associated with the social and environmental requirements established by D'Appolonia through the formulation, and execution of activities associated with IFC environmental and social performance standards that encompass the following topics: 1. Environmental and social assessment and management system. 2. Work and working conditions, 3. Prevention and reduction of pollution, 4. Health, protection and safety of the community, 5. Land acquisition and involuntary resettlement, 6. Conservation of biodiversity and sustainable management of natural resources, 7. Cultural heritage. In the present document, progress is reported on the requirements associated with the performance standard 1. Environmental and social assessment and management system.

Establishment of value commitments through the coordination of activities aimed at strengthening the economy and the tradition of the surrounding populations. For this is pending for final signature, agreements of agreement between the community and the company. The materialization of these agreements will allow the empowerment of the community and the strengthening of activities associated with traditional practices.

In conclusion due to the constant and effective work in the region of the social team on behalf of the project, the following achievements have been achieved:

- Interinstitutional relationship
- Positive business image at Regional level
- Strengthening community relations with the project
- Presence in the area
- Business synergies

In this way, the importance of the achievements obtained to date and the vitality of the accompaniment carried out by Aqua & Terra in matters of social and environmental management are highlighted, managing to establish bonds of trust between the communities and interest groups that will be fundamental for the establishment of a good project - community relationship sustainable in time.

Note: In order to obtain a greater detail of the activities indicated here that are part of the Port's Relationship Plan, see Annex 1.4 where are meeting minutes and attendance lists, photographic record, presentations, draft agreements and weekly reports.

EX POST REPORT OF LAND ACQUISITION AND INVOLUNTARY RESETTLING PROCESS

DOCUMENT TITLE:		COMPLIANCE PLAN OF SOCIAL AND ENVIRONMENTAL PERFORMANCE STANDARDS - PUERTO ANTIOQUIA			
DOCUMENT No.:		GAT-622-618-17-CA-AM-PBCU-02			
APPROVAL	**REVIEW**	**Version**	**VA**	**VB**	**VC**
	V0 **PREPARED BY / POSITION**	**Name:**	Vanesa Flórez / Sociologist		
		Date:	09/03/2018		
	V1 **PREPARED BY / POSITION**	**Name:**	Vanesa Flórez / Sociologist		
		Date:	13/03/2018		
	V2 **REVIEWED BY /POSITION**	**Name:**	Isabel Panesso		
		Date:	12/04/2018		
	V3 **APPROVED BY /POSITION**	**Name:**	Juan Jose Cardona / Environmental coordinator		
		Date:	29/05/2018		
	V4 **AUTHORIZED BY /POSITION**	**Name:**	Jaime Sebastian Piedrahita Arias / Environmental Director		
		Date:	05/06/2018		

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LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT

5 EX POST REPORT OF LAND ACQUISITION AND INVOLUNTARY RESETTLING PROCESS

5.1 LAND ACQUISITION

Property component

The 28 houses that were in the area under resettlement had private owners, the property status was defined through purchases made by authorized persons, who in turn owned title deed granted by the liquidated Colombian Institute of Rural Development -INCODER, today National Land Agency; of the remaining families 2 had a lot but had not built their house and the others did not own a lot or a house and lived in the vereda (rural district) in family homes.

5.2 RESETTLEMENT PROCESS OF EL CANAL COMMUNITY

Puerto Bahía Colombia de Urabá S.A. Puerto Antioquia, since the preparation of the Environmental Impact Study in 2009, contemplated as a direct area of influence the settlement of the El Canal community; from that date the need for a relocation was evident, not only because of its proximity to the project but because of its housing conditions.

"(...) Due to the social dynamics and needs of the El Canal community affected by the winter wave that occurred in 2010 - 2011 in Colombia, on October 2, 2012, the FUNDAUNIBAN [1] Foundation, representing one of the banana companies with greater presence and impact in the area and linked to the project of Puerto Antioquia as an active partner, began a plan for relocation and resettlement of the community through the Program "... more than homes we build community..."[2], with public and private funds and under which the social accompaniment

[1] Foundation of the banana and banana international trading company C.I. Unibán S.A. which concentrates its productive activity in the Urabá region.

[2] PUERTO BAHÍA COLOMBIA DE URABA- PUERTO ANTIOQUIA & AQUA & TERRA CONSULTORES ASOCIADOS S.A.S." Modification of environmental license for the project of construction and operation of a port terminal of solid bulk of deep draft in Colombia Bay". Characterization of the socioeconomic component, 2015, page 31.

was made to the families to link them in the construction project of their new homes, this process that has not yet finished, has always had the purpose of restoring and improving the living conditions that these families had prior to relocation.

The following will describe the different stages that have been advanced and the status of the resettlement process, as well as the different programs that are proposed for the continuous improvement of the living conditions of the population.

5.2.1.1 Previous stage

5.2.2.1.1 Diagnosis of preconditions of the resettled population

The data corresponding to the previous characterization of the living conditions of the resettled population that will be listed below are part of the report "Socioeconomic, environmental and family characterization of the community vereda El Canal , Nueva Colonia township Municipality of Turbo" carried out in 2009 and the Environmental Impact Study conducted by Aqua & Terra Consultores Asociados SAS in 2015 within the framework of the environmental licensing of Puerto Bahía Colombia de Urabá SA.

For collection of this information, FUNDAUNIBÁN [3] applied the participant observation methodology [4], and a census was conducted in which information was collected concerning demographic aspects, education, health, housing, income, public services, physical infrastructure, road and social.

- Territorial History

According to the characterization report carried out by FUNDAUNIBÁN, the vereda was formed around 1996, starting from an episode of forced displacement in which 31 families located at kilometer 27 of the Pan-American Highway and the area known as the T of the municipality of Turbo, move to the vereda El Canal.

[3] Entity in charge of carrying out the resettlement
[4]The participant observation is a qualitative social research methodology that is characterized by the fact that the observer collects the data in the natural environment and has a direct relationship with the observed subjects

"This community is part of an extended family. Because of the displacement, they sought the support of a relative who owned a property of approximately 7.5 hectares and he placed them in lots of 10 meters in front by 20 meters deep at $ 400,000 each to be paid by installments; These properties were sold with purchase papers. The area occupied by lots and houses is 1.5 hectares"[5].

In this way the process of settlement of these families in the vereda El Canal began.

- Population Census El Canal community

At the time of the characterization carried out by FUNDAUNIBÁN, the vereda was made up of 31 families with a total of 145 people, with an average of five people per family, who lived in 24 houses in overcrowded conditions because the houses only had one room that offered all the services, that is, as a kitchen and a place to sleep. Next, Table 5.2.1 shows the population distribution of the vereda for that moment.

Table 5.2.1 Population distribution by age groups

Age range	Men	Women	Total	Percentage
0 to 5 years	15	14	29	20%
6 to 14 years	19	19	38	26.2%
14 to 18 years	6	9	15	10.34%
19 to 62 years	29	30	59	40.67%
Older than 65 years	3	1	4	2.75%
TOTAL	72	73	145	100%

Source: Prepared by Aqua & Terra Consultores Asociados with information from Fundaunibán, 2009.

For this moment it is observed that most of the population was between 0 and 14 years old which indicates a high rate of children and adolescents for a total of 56.54% of the population settled in this vereda, for the population located in the range of 18 to 62 the percentage is 40.67% which in turn constitutes the average of Economically Active Population -PEA, while older adults represent only 2.75% of the population.

It can be observed in the data presented that the distribution by sex shows a similarity between the number of women and men being 73 and 72 respectively.

The predominant type of family is that of the nuclear family (that which is composed of a single-family nucleus consisting of a couple of parents and their children), even when there are two

[5] Ibid., p. 04-05.

families in the same household, according to the data provided for that moment they found 25 nuclear families, 5 families composed of extended families where a family nucleus lives with their relatives, and the case of three women head of household.

- Social physical characteristics (schools, roads, recreation, health institutions, housing)

- Housing

As indicated above, the vereda had 28 houses, these were built on a muddy, unstable ground that was very often flooded by the tide, due to the rains that in turn cause the channel to grow and overflow. "100% of the houses are built with poor quality wood, moored sticks, cuttings without any symmetry, the ceilings in 79.2% have zinc sheets and 20.8% are covered with plastic, five houses combine plastic with zinc, 23 houses have a dirt floor and only one house has cement floor"[6].

As can be seen (Photograph 5.2.1) the habitability conditions of these families were precarious and presented an emergency related to the constant rain and floods.

[6] Ibid., p. 06.

Photograph 5.2.1 Housing settlement El Canal before resettlement

Source: Aqua & Terra Consultores Asociados S.A.S, 2015.

-Educational infrastructure

According to the characterization studies carried out previously by FUNDAUNIBÁN as well as by Aqua & Terra, the vereda had an educational institution with wooden structure, two rooms, one for classes and another as a dining room in which a snack was offered, there was no housing for the two teachers who worked there nor had any recreational infrastructure (Photograph 5.2.2).

Photograph 5.2.2 School located in the El Canal settlement

Source: Aqua & Terra Consultores Asociados S.A.S, 2015.

- Health Infrastructure

Vereda el Canal did not have infrastructure associated with the provision of health services, these services are provided in the health center of Nueva Colonia.

- Recreational infrastructure

The area did not have any type of infrastructure or sports or recreational scenarios, young people who played soccer for example, moved to Nueva Colonia to practice there, which shows the lack of scenarios for the development of effective ways to use time free, which in turn can be reflected in the occurrence of various youth social problems.

- Home public services

Aqueduct and sewage system: The Vereda did not have sewerage or water supply services, the water supply was through rainwater collection and the purchase of potable water for food (Photograph 5.2.3).

Photograph 5.2.3 water collection system

Source: Aqua & Terra Consultores Asociados S.A.S, 2015

The disposal of excreta was carried out in the open field or in plastic bags and the houses did not normally have a bathroom.

Energy service: The population did not have electricity service until 2010 when "with the support of the project promoter Puerto Bahía Colombia de Urabá and by management of the EEPPMM, it was achieved that the electrical connection system taken from Nueva Colonia to the project site was connected to a transformer bypass, from which energy was conducted to the houses of the vereda, which began to have this basic service".

Collection of solid waste: the community had a wooden shed built by CORPOURABA to dispose recyclable solid waste, also had public plastic trash cans that were collected by the company responsible for handling waste Futuraseo every two weeks.

- Economic conditions

Taking into account the information collected by FUNDAUNIBÁN, in the vereda the traditional division of labor prevailed where the man assumes the role of provider and the woman attends to the domestic tasks, in this order of ideas the men are mostly engaged in day labor on farms and banana plantations in the area, when there is no work they are engaged in fishing as a secondary activity, only seven men from the vereda were engaged in fishing as a main activity.

The fishing gear they use is hook, net and trammel with wooden canoes that are driven by oars.

Women, in addition to housework, raise turkeys and chickens to contribute to the family economy.

It is noteworthy that none of the families owned land for the development of agricultural production activities.

According to Fundauniban, in a report presented in 2015, "48% of the population generate income between 1/3 and 1 legal monthly minimum wage in force. 27% receive income of more than 1/6 and up to 1/3 and 13% receive up to 1/6. Only 9% receive income between one and two minimum wages, which corresponds to two families that have a member formally linked to a job and a fisherman" (See Figure 5.2.1)

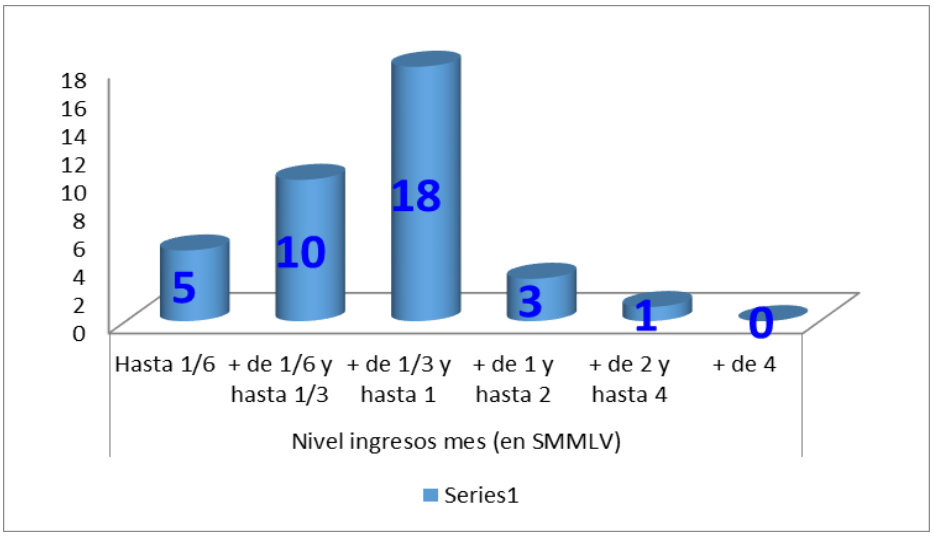

Figure 5.2.1 level of income of the population prior to resettlement

Source: FUNDAUNIBÁN, 2015.

Nivel ingresos mes (en SMMLV): Monthly income level (legal monthly minimum wage in force)

According to this same report, 59% of the families stated that their income does not cover the basic needs of the family group and 41% stated that they manage to cover their fixed expenses, without generating surpluses for saving or other activities (See Figure 5.2. 2).

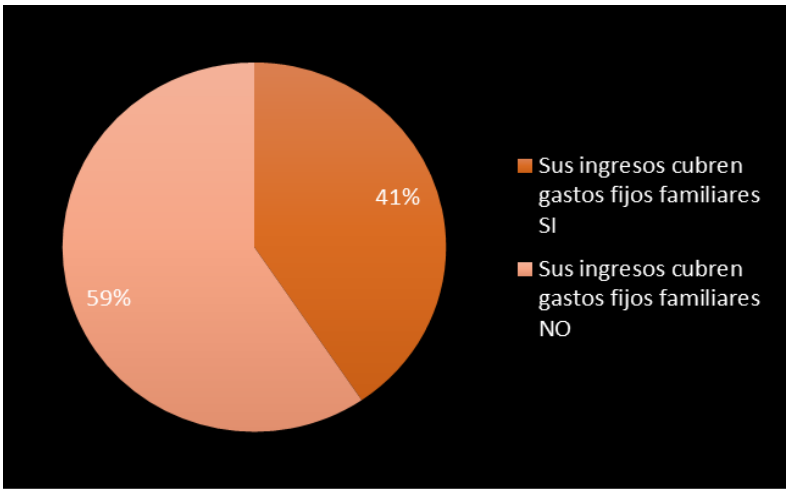

Figure 5.2.2 satisfaction of fixed family expenses
Source: FUNDAUNIBÁN, 2015.

Their income covers the basic needs of the family group YES 41% NO 59%

5.2.1.2 Resettlement process

Bearing in mind that a monetary remuneration does not represent a solution to the impacts that displacement can cause, nor guarantees that there is a restoration of the socioeconomic conditions of the resettled population, the society Puerto Bahía Colombia de Urabá through FUNDAUNIBÁN has developed a comprehensive resettlement plan that contemplated a participatory and consensual process with the communities in addition to the implementation of various community strengthening programs as well as strengthening their productive activities.

Once the families were identified and the population to be resettled, a participatory process was initiated in which the best alternatives for their relocation were evaluated, the FUNDAUNIBÁN interdisciplinary staff led by an architect and a social worker carried out various workshops in which the following criteria for resettlement was evaluated:

1. Choice of land

2. Definition of the area to be built

3. Housing design

4. Spatial location of each dwelling

5.2.1.2.1 Participatory process prior to resettlement

Land choice: The choice of the ideal land for the relocation of these families represented an important point, which considered criteria such as proximity to the head of the corregimiento of Nueva Colonia, access roads, facilities for access to basic services such as aqueduct and electricity, proximity to the New Colonia canal for the development of activities such as fishing.

Also, it was respected within the assigned areas, a lot for the construction of a church, since it was a space that was in vereda El Canal, in addition to a lot thought for the construction of recreational spaces like a court or a park of games.

Definition of the area to be built: During this participatory process with the communities, it was agreed what would be the area to be built and occupied by the dwellings, defining for example an area to be built of 49 m^2 and an area of 49 m^2 without building for each family, which can be used for future extensions of the house or for any other activity, thus adding a total of 98 m^2.

Housing design: Once the area to be built was defined, an exercise was carried out that sought to optimize the spaces through the efficient design of the same, the construction was designed in the form of urbanization and all the houses have the same internal spaces.

Spatial location of each dwelling: seeking to alter as little as possible the social ties built between the families and the neighborhood dynamics, the distribution by family in each of the new houses was carried out considering the location they had in the vereda El Canal, that is, locating families according to the neighbors they had to avoid conflicts, however, and according to the request of the community, some people were placed according to their choice.

5.2.1.2.2 Resettlement Process ex post

An essential part of the process has been the commitment to the social programs that have been implemented after the resettlement and that have been part of a comprehensive accompaniment process aimed at the organizational and economic activity of artisanal fishing strengthening developed by some families. Considering the above, four general programs have been developed that will be indicated below.

- Community strengthening workshops

From the moment of the relocation to the present, workshops focused on the community strengthening of the resettled population are being carried out in which topics of assertive communication, teamwork and leadership are worked on, this with the intention of improving social relations and coexistence between neighbors. Bearing in mind that the resettled population is a population that, before reaching El Canal, was the victim of forced displacement, the issues addressed were resilience or adaptability to change, emotional containment and a gender approach that seeks to favor the inclusion conditions and enable positive changes at the participatory level of women in the group to contribute to the family economy.

- Project to strengthen the economic activity of artisanal fishing

During 2015 and 2016 a project was carried out to strengthen the economic activity of artisanal fishing in order to have a direct impact on the economic component and, therefore, on the standard of living of the resettled population, the economic resources of the project were granted by the Rural Development Agency- ADR (by its acronym in Spanish) and was executed by

FUNDAUNIBAN. Through this project a fishing product industry and marketing company was legally constituted, this society is recognized as the ASOPESCATUR Association of fishermen and 28 fishermen are part of it, the project also included the delivery of seven corvina type boats, five motors outboard and seven fishing kits containing trammel, safety kit, GPS, ice, fuel and isothermal digs.

- Project business units through artisanal fisheries

Since 2017 a project has been carried out with financial contributions from the international organization ACDI VOCA aimed at strengthening economic activity through the establishment of business units, this process has been carried out with the Association of fishermen Asopescatur, from there seven groups or business units have been formed, taking up the process of the previous project carried out through ADR resources, through this project a training process has been carried out on business topics where the subjects of marketing, production and administration and optimization of resources are highlighted, seven fishing kits were given within the framework of this project.

- Healthy housing project, home gardens

This project was carried out in the same way as the previous one with ACDI VOCA resources, and it has been running since 2017, during the process it has provided advice and supply of raw material for the construction of home gardens in which vegetables are planted. This project involves 20 families that agreed to be linked, most participants are women, which has had a positive impact on their empowerment as enablers of the improvement of the quality of life of their homes.

5.2.1.2.3 Current conditions

Currently, as evidenced in the previous paragraphs, it has been possible to improve the living conditions of the resettled population, in terms of their habitability conditions and the strengthening of their productive activities. To date, 33 homes have been assigned to the families that were in the vereda of El Canal and that today inhabit the Guillermo Henríquez Gallo Urbanization, there are at the moment two cases of families that were not resettled. Below are

described the conditions of the resettled population and the situation and alternatives for the two families that have not yet resettled.

- Social infrastructure

The urbanization Guillermo Henríquez Gallo where the population of El Canal vereda was relocated has 35 houses each with a built area of 49 m^2 that has a living room, kitchen, sanitary unit, 2 bedrooms, prefabricated laundry, plus a free area for future expansion and patios of 49 m^2.

These are brick constructions covered with smooth external plaster and koraza-type main facade paint, the roof consists of a structure of wood and tiles in fiber cement free of materials harmful to health, the doors are made of galvanized sheet gauge 20 and the windows in matt aluminum and sliding glass.


Photograph 5.2.4 Housing Guillermo Henríquez Gallo Urbanization

Source: Aqua & Terra Consultores Asociados S.A.S, 2018

- Educational infrastructure

When the resettled population lived in the vereda of El Canal, they had an educational institution with a wooden structure, and now that they are at the head of the corregimiento, they have access to Educational Institutions of the Nueva Colonia district as the Institución Educativa 29 de Noviembre that is a few meters from the urbanization or the Educational Institution Nueva Colonia, in this sense the access to formal education that was previously limited has improved.

- Health infrastructure

In terms of health infrastructure, the community continues to access the care provided in the health center of Nueva Colonia, now with greater facilities because, due to their relocation, they are now closer.

- Recreational Infrastructure

Currently the urbanization does not have a suitable area for recreational purposes, however they have a lot that will be used for the construction of a playground and a court. (This project is part of the plan for the improvement of living conditions, which is explained in the chapter on programs that will be executed when the construction of the project begins).

- Public services

- Aqueduct

The houses of the urbanization have an aqueduct system (Photo 5.2.5), the company in charge of supplying this service is Óptima de Urabá S.A E.S.P. The cost paid per month for water service is on average $ 12,000.

Photograph 5.2.5 Aqueduct service counter

Source: Aqua & Terra Consultores Asociados S.A.S, 2018.

- Sewerage

For the treatment of wastewater, there is a treatment plant of 50,000 liters, as well as the aqueduct service, this service is supplied by Óptima de Urabá S.A E.S.P (Photo 5.2.6).

Photograph 5.2.1 Wastewater treatment plant

Source: Aqua & Terra Consultores Asociados S.A.S, 2018.

- Electricity service

All homes have an electrical system properly distributed in three circuits, the network has electrical pipes and boxes properly embedded, the energy service is provided by EPM in prepaid service mode, where users according to their needs recharge an average amount of $ 18,000 to enjoy the service for a month. The modality of payment for the energy service was agreed and chosen by the community since it offers greater control over the level of consumption.

- Collection of solid waste

The solid waste collection is carried out by the company Futuraseo with a twice a week frequency which has also contributed to improve the living conditions considering that when they were in the vereda El Canal this service was only provided with a frequency twice a month, which generated problems with the management of solid waste and health.

- Economic conditions

Nowadays, the traditional division of labor in which the man is a provider and the woman takes care of the housework continues to predominate; However, as indicated above, it has been possible to link them in a project of home gardens that has generated positive changes with respect to the perception that women have of their role and the impact they can have on the family economy, men for their part continue to carry out day labor activities on the banana and livestock farms but have managed to strengthen the practice of artisanal fishing, converting it into their main source of income through the different programs they have accessed thanks to the institutional alliances between the Port, the companies of the sector (in this case FUNDAUNIBAN) and different national and international institutional organisms like USAID, programs through which they have obtained training and equipment necessary for the performance of the activity.

In terms of the practice of artisanal fishing as the main economic activity, a remarkable improvement has been achieved in terms of having the necessary equipment to optimize their work and a constant accompaniment in which they have begun to see a complete business alternative.

5.2.1.3 Planning the livelihood restoration plan

In a preliminary way, it becomes important to highlight that with the resettlement process carried out by the FUNDAUNIBAN Foundation, the livelihoods of this population were not affected, considering the fact that they are still carrying out their social, economic and cultural activities. In this sense, the actions put forward here are intended to improve the living conditions of the resettled population through the different programs proposed by the Department of Social and Environmental Management of the Puerto Bahía Colombia Project in Urabá. In this sense, a constant accompaniment has been carried out for the evaluation of the current conditions, needs and more viable ways of providing a solution to any inconvenience. For this purpose, participatory workshops and open dialogue spaces have been set up for the entire community, where their needs are evaluated and solutions are proposed through public-private alliances.

Within the framework of the Project Participation Plan, the community has been informed about the operationg community service office of the project and the available communication

channels as well as the different consultation mechanisms, mechanisms of attention complaints that will enable to receive and resolve in a timely manner the concerns that can be formulated by the members of the communities, including a mechanism to interpose resources, designed to resolve conflicts impartially.

5.2.1.4 Formulation of improvement plans

In the meetings held by the Department of Social and Environmental Management of the Puerto Bahía Colombia Project in Urabá and community members they state that although they have been favored in the improvement of their economic conditions through the programs of strengthening of artisanal fishing, they currently have a problem related to the jetty, since in their previous settlement they had the facility to keep their boats and fishing equipment in their homes for being located next to the channel and in the new place they must cross a road and they have difficulty caring for their boats. As a solution to this situation, the community proposes the construction of a dock in the place where they currently locate their boats and the location of a kind of warehouse where they can store their fishing equipment without having to carry them to the homes.

They have also pointed out that another important aspect for the improvement of their living conditions refers to the construction of a recreational area in a lot that has been destined since the beginning for this purpose; thus there would be a space for the recreation of the community in general, the generation of productive alternatives for the community, the improvement of lighting at the entrance of the urbanization and the persistence of capacities aimed at strengthening the community action board with respect to the subject of institutional management.

After the meetings held and taking into account the needs expressed by the community, Puerto Bahía Colombia de Urabá-Puerto Antioquia is in the process of participatory construction of the **Community Infrastructure Program** that currently consists of three projects:

I. Construction of a recreational area for children and youth

II. The construction of a dock on the channel of Nueva Colonia for the location of boats and fishing equipment

III. Support in the management for improvement in terms of home public services

BIODIVERSITY MANAGEMENT PLAN - SUMMARY

TÍTULO DEL DOCUMENTO:		FAUNA ACUÁTICA EN EL GOLFO DE URABÁ			
DOCUMENTO No.:					
APROBACIÓN	**REVISIÓN NO:**	**Versión**	**VA**	**VB**	**VC**
	V0 ELABORA / CARGO	Nombre:	J. Viviana Pérez A / Bióloga mención en marina		
		Fecha:	21/09/2018		
	V1 ELABORA / CARGO	Nombre:	J. Viviana Pérez A / Bióloga mención en marina		
		Fecha:	21/09/2018		
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		Fecha:	21/09/2018		
	V3 APRUEBA / CARGO	Nombre:	Juan José Cardona / Coordinador amb		
		Fecha:	21/09/2018		
	V4 AUTORIZA / CARGO	Nombre:	Sebastian Piedrahita / Director Amb		
		Fecha:	21/09/2018		

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ANNEX

Anexo 1. BASELINE STUDIES – MARINE MAMMALS

1 AQUATIC FAUNA PRESENT IN THE GULF OF URABA

Below is a summary of the aquatic fauna present in the Gulf of Uraba and its tributaries (gray dolphin and bottle snout, manatee, sea turtles and otter). In this order of ideas, documents were consulted such as: National action plan for the conservation of aquatic mammals in Colombia, Management plan for the conservation of otters (Lontra longicaudis and Pteronura brasiliensis) in Colombia, National Program for the Conservation and Management of Manatees (Trichechus sp) in Colombia, Nesting and feeding areas for marine turtles in the Colombian Caribbean and the Sea Turtle Action Plan for Latin America and the Caribbean[1] [2] [3] [4] [5].

The Gulf of Urabá, is considered an ecoregion of great environmental wealth constituting one of the most important estuaries of the Colombian Caribbean. The proper dynamics of the estuaries between brackish and sweet waters contributed by the Atrato River among other tributaries, allows the establishment of special ecosystems and ecological importance such as: the mangrove ecosystem, wetlands, rocky coastline and beaches, among others.[6] [7] [8] [9]. The Atrato River is the second river with the highest flow in the Colombian Caribbean (4,155 m3 / s), after the Magdalena River; It flows into the Gulf of Urabá forming "the largest estuarine complex of

[1] TRUJILLO, F., D. CAICEDO Y M. C. DIAZGRANADOS (Eds.). 2014. Plan de acción nacional para la conservación de los mamíferos acuáticos de Colombia (PAN mamíferos Colombia). Ministerio de Ambiente y Desarrollo Sostenible, Fundación Omacha, Conservación Internacional y WWF. Bogotá, 54 p.

[2] COLOMBIA. MINISTERIO DE AMBIENTE Y DESARROLLO SOSTENIBLE. Plan de manejo para la conservación de las nutrias (*Lontra longicaudis y Pteronura brasiliensis*) en Colombia / Eds.: Ministerio de Ambiente y Desarrollo Sostenible. Dirección de Bosques, Biodiversidad y Servicios Ecosistémicos: Avella, Carolina; Fundación Omacha: Trujillo Fernando; Caicedo H. Dalila; Mosquera Guerra, Federico; Botero Botero, Álvaro. Bogotá, D.C.: Colombia. Ministerio de Ambiente y Desarrollo Sostenible, Fundación Omacha, 2016.

[3] CAICEDO-HERRERA, D.; F. TRUJILLO; C.L. RODRÍGUEZ. & M.A RIVERA. 2004. Programa Nacional para la Conservación y Manejo de los Manatíes (*Trichechus sp*) en Colombia. Fundación Omacha- Ministerio de Ambiente, Vivienda y Desarrollo Territorial. Bogotá. 170p.

[4] MINISTERIO DE AMBIENTE, VIVIENDA Y DESARROLLO TERRITORIAL – MADVT, INVEMAR. Áreas de anidación y de alimentación de las tortugas marinas en el Caribe colombiano. 2006. Bogotá D.C. 80p.

[5] AMOROCHO, D., LESLIE, M., FISH, E., SANJURJO, E., AMOROS , S., ÁVILA, I. C., TORAL, V; GERHARTZ, J.L.; BILO, K; GUERRERO, P; ZAPATA, L.A.; DOUTHWAITE, K. (2016). Marine Turtle WWF Action Plan LatinAmerica and The Caribbean:2015 - 2020. Cali, Colombia: Dereix.

[6] DEPARTAMENTO DE PLANEACIÓN NACIONAL, DEPARTAMENTO ADMINISTRATIVO DE PLANEACIÓN DE ANTIOQUIA Y JUNTA EFEMÉRIDES URABÁ. (2006). Plan Estratégico para la Región de Urabá – Darién. Primera fase: Construcción de insumos para el proceso en la región. Medellín, Colombia. 154p.

[7] THOMAS, Y. F., C. GARCÍA VALENCIA, M. CESARACCIO Y X. ROJAS. (2007). El paisaje en el Golfo. En García - Valencia, C. (Ed). Atlas del golfo de Urabá: una mirada al Caribe de Antioquia y Chocó (75-127). Instituto de Investigaciones Marinas y Costeras – Invemar – y Gobernación de Antioquia. Serie de Publicaciones Especiales de Invemar N° 12. Santa Marta, Colombia.

[8] MONTOYA, L. J. (2010). Dinámica oceanográfica del golfo de Urabá y su relación con los patrones de dispersión de contaminantes y sedimentos. Trabajo presentado como requisito parcial para optar por el título de Doctor en ingeniería – Recursos hidráulicos. Universidad Nacional de Colombia.124p.

[9] OMACHA Y CORPOURABÁ. 2016. Informe Técnico. Línea base para la caracterización de mamíferos marinos en el Golfo de Urabá, Caribe colombiano. Segundo semestre de 2016. 37p.

the entire Colombian Caribbean and the South Caribbean basin" whose geographical and oceanographic characteristics are unique [10].

These ecosystems lead to a striking landscape relationship, as a potential for ecotourism and economic activities related to biodiversity. However, this "natural beauty" has been affected over time, due to various anthropogenic pressures, namely: different land uses, fishing, agriculture and hunting, livestock, forestry, tourism and aquaculture. The development of these activities has generated notable changes in native ecosystems that directly affect the fauna and flora, so it has sought to develop management policies that allow a rational and sustainable use of resources, starting with social and scientific studies that provide information base for decision making[11] [12].

Within the Gulf, five species of sea turtles Dermochelys coriácea or Lute, Eretmochelys imbricata or Hawksbill Turtle, Caretta caretta or Caguama, Chelonia mydas or Green Turtle and Lepidochelys olivacea or Olive Ridley turtle; who use more than 50Km of the beaches of the Gulf for nesting, and different sectors of the estuary for food and transit[13]. The ecological importance of these organisms is that they act as links between ecosystems of low and high productivity favoring the transport of energy and promote the stabilization of vegetated bottoms in feeding areas.

As regards mammals, the Antillean Manatee (Trichechus manatus) has been recorded at the mouth of the Atrato River and some surrounding areas, as well as at Necoclí and Acandí [14], the Neotropical otter (Lontra longicaudis) associated with bogs, wetlands and streams [15] and the presence of dolphins and whales has been confirmed: Sperm whale (Physeter macrocephalus) strandings have occurred [16] and the presence of dolphins and whales has been confirmed:

[10] BLANCO-LIBREROS, J. F., & LONDOÑO-MESA, M. H. (2016). Expedición Caribe sur: Antioquia y Chocó costeros (1 ed.). Bogotá: Secretaria Ejecutiva de la Comisión Colombiana del Océano.
[11] OMACHA Y CORPOURABÁ., Línea base para la caracterización de mamíferos marinos en el Golfo de Urabá, Op. Cit.
[12] GARCÍA-VALENCIA, C. (2007). Atlas del golfo de Urabá: una mirada al Caribe de Antioquia y Chocó. Instituto de Investigaciones Marinas y Costeras – Invemar – y Gobernación de Antioquia. Serie de Publicaciones Especiales de Invemar N° 12. Santa Marta, Colombia. 180p.
[13] CEBALLOS-FONSECA, C. (2004). Distribución de playas de anidación y áreas de alimentación de tortugas marinas y sus amenazas en el caribe colombiano. Boletín de Investigaciones Marinas y Costeras (33), 79-99.
[14] Caicedo-Herrera et al., 2015; Reportes no publicados de la Fundación Omacha.
[15] OMACHA Y CORPOURABÁ., Línea base para la caracterización de mamíferos marinos en el Golfo de Urabá, Op. Cit.
[16] BIOMUNICIPIOS. (2009). Biomunicipios. Recuperado el 4 de marzo de 2015, de http://biomunicipios.org/701.html

Sperm whale (Physeter macrocephalus) strandings[17] [18]; sightings of killer whales (Orcinus orca) and false killer whales (Pseudorca crassidens)[19] and it is known that two populations of dolphins of the species Sotalia guianensis or gray dolphin and Tursiops truncatus or bottlenose dolphins use the Gulf continuously [20] [21].

Aquatic mammals, have a rapid behavioral reaction to changes in the environment, control the regulation of populations of lower trophic levels and through them it is possible to assess the level of contaminants in a system, due to its capacity for bioaccumulation, for what are considered sentinel organisms[22].

Turtles and mammals are considered flagship species, which means they are charismatic animals, used as symbols to protect ecosystems, regions and, consequently, other species[23].

The state of conservation and threat of extinction of the named species is presented in Table 1.1. Nationally 7 of the 11, species are found in the highest degrees of threat. The definition of these status at national and international level is determined by specialists and researchers from around the world who know the populations and identify the factors that affect the health of these, among which are: directed or incidental fishing that decreases populations[24] [25], tourism, which can affect the dynamics of populations through noise pollution and collision with boats [26]

[17] Reportes no publicados de la Corporación Ambiental Biomunicipios, DAMA de la Gobernación de Antioquia

[18] El Colombiano. (4 de marzo de 2015). El Colombiano. Recuperado el 2015 de marzo de 5, de http://www.elcolombiano.com/encuentran-ballenato-muerto-en-el-golfo-de-uraba-DK1419656

[19] Reportes no publicados de la Corporación Ambiental Biomunicipios, Secretaría distrital de Ambiente – DAMA - de la Gobernación de Antioquia y Corpouraba, 2008

[20] PATIÑO, J. (2011). Comportamiento y uso de hábitat de *Sotalia guianensis* en la Bahía El Roto, Golfo de Urabá. Tesis de grado, 61p. Medellín, Colombia: Universidad de Antioquia.

[21] OMACHA Y CORPOURABÁ., Línea base para la caracterización de mamíferos marinos en el Golfo de Urabá, Op. Cit.

[22] REDDY, M., DIERAUF, L., & GULLAND, M. (2001). Marine mammals as sentinels of ocean health. En L. &. Dierauf (Ed.), CRC Handbook of Marine Mammal Medicine (págs. 3-13). Urbana, Illinois, USA: CRC Press.

[23] O'SHEA, T. J., & ODELL, D. K. (2008). Large‐scale marine ecosystem changes and the conservation of marine mammals. Journal of Mammalogy, 89(3), 529-533.

[24] DOLMAN, S. J., & MOORE, M. J. (2017). Welfare implications of catacean bycatch and entaglements. En A. Butterworth, Marine Mammal Welfare: Human Induced Change in the Marine Environment and its Impacts on Marine Mammal Welfare (Vol. 17, págs. 41-66). UK: Springer.

[25] BROWN, S., REID, D., & ROGAN, E. (Agosto de 2014). Characteristics of Fishing Operations, Environment and Life History Contributing to Small Cetacean Bycatch in the Northeast Atlantic. (R. Reina, Ed.) PLOS ONE, 9(8). Recuperado el 13 de Marzo de 2017, de PLOS ONE: http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0104468&type=printable

[26] SENIGAGLIA, V., CHRISTIANSEN, F., BEJDER, L., GENDRON, D., LUNDQUIST, D., SCHAFFAR, A; LUSSEAU, D. (Enero de 19 de 2016). Meta-analyses of whale-watching impact studies: comparisons of cetacean responses to disturbance. Marine Ecology Progress Series, 542, 251-263.

[27],the oil industry, especially in its exploration phase, which can generate lesions in the auditory systems, modify the vital activities due to the overlapping of the sounds, produce decompression diseases and behavioral changes[28] [29] [30], and the construction of coastal infrastructure such as ports that modify the habitat, produce underwater noise, increase the marine traffic and therefore the probability of collision with ships and oil spills[31] [32].

Table 1.1 Conservation status of some of the species of marine turtles and aquatic mammals of the Gulf of Urabá

Common name	Species	World conservation status Red List IUNC	National conservation status- Red book
Tortuga Laúd o Caná	*Dermochelys coriácea*	VU	CR
Tortuga Carey	*Eretmochelys imbricata*	CR	CR
Caguama	*Caretta caretta*	VU	CR
Tortuga verde	*Chelonia mydas*	EN	EN
Manatí antillano	*Trichechus manatus*	VU	EN
Nutria neotropical	*Lontra longicaudis*	NT	VU
Cachalote	*Physeter macrocephalus*	VU	VU
Orca	*Orcinus orca*	DD	NT
Falsa orca	*Pseudorca crassidens*	DD	DD
Delfín gris	*Sotalia guianensis*	DD	DD
Delfín mular o delfín hocico de botella	*Tursiops truncatus*	LC	NT

(Preocupación menor: LC; Casi amenazada: NT; Vulnerable :VU; En peligro: EN; En peligro crítico: CR y Datos insuficientes: DD)

Source: Prepared by María Camila Rosso, ajustado por Aqua & Terra Consultores Asociados S.A.S., 2018

[27] CHRISTIANSEN, F., & LUSSEAU, D. (2014). Understanding the ecological effects of whale-watching in cetaceans. En J. Higham, L. Bejder, & R. Williams (Edits.), Whale-watching: Sustainable Tourism and Ecological Management (págs. 177-192). Cambridge: Cambridge University Press.

[28] STONE, C. J., & TASKER, M. L. (2006). The effects of seismic airguns on cetaceans in UK waters. Journal of Cetacean Research and Management, 8(3), 255–263.

[29] GORDON, J., GILLESPIE, D., POTTER, J., FRANTZIS, A., SIMMONDS, M. P., SWIFT, R., & THOMPSON, D. (2003). A Review of the Effects of Seismic Surveys on Marine Mammals. Marine Technology Society Journal, 37(4), 16-34.

[30] ROBERTSON , F. F., KOSKI, W. R., THOMAS, T. A., RICHARDSON, W. J., WURSIG, B., & TRITES, A. W. (2013). Seismic operations have variable effects on dive-cycle behavior of bowhead whales in the Beaufort Sea. Endagered Species Research, 21, 143-160.

[31] JEFFERSON, T. A., HUNGB, S. K., & WÜRSIGC, B. (2009). Protecting small cetaceans from coastal development: Impact assessment and mitigation experience in Hong Kong. Marine Policy, 33(2), 305-311.

[32] CHILVERS, B. L., LAWLER, I. R., MACKNIGHT, F., MARSH, H., NOAD, M., & PATERSON, R. (2005). Moreton Bay, Queensland, Australia: an example of the co-existence of significant marine mammal populations and large-scale coastal development. Biological Conservation, 122(4), 559-571.

2 SYNTHESIS OF THE CHARACTERIZATION OF MARINE MAMMALS IN THE GULF OF URABA

Within the information consulted, the report presented by the Omacha Foundation in relation to marine mammals present in the Gulf of Urabá in 2016[33] (Anexo 1), seeks an approach of the current status and presence of marine mammals in the Gulf of Urabá. For which they conducted a study between August and November 2016, semi-structured interviews with fishermen (mostly), where they asked for personal data, types of boat, fishing gear, target species, knowledge about cetaceans, dolphins, manatees, turtles and Otters and meeting areas with these individuals, among other information, also made aquatic transects of three (3) kilometers in length in zigzag lines from the southern area of the gulf (Colombia Bay) to the coast terminating in Punta Caribaná, as It is shown in Figure 2.1.

[33] OMACHA Y CORPOURABÁ., Línea base para la caracterización de mamíferos marinos en el Golfo de Urabá, Op. Cit.

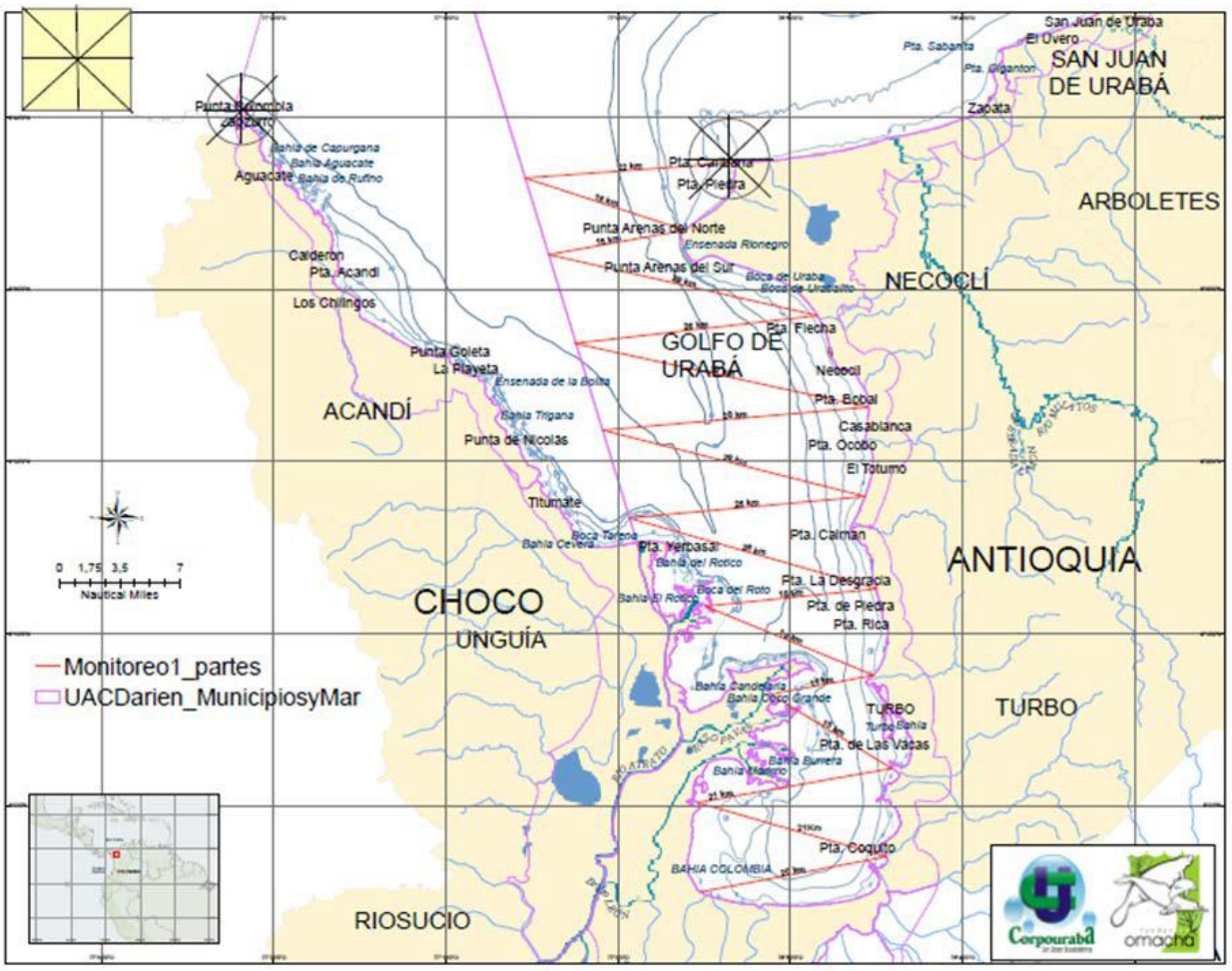

Figure 2.1 Zigzag aquatic transects carried out in the study of the Omacha Foundation

Source: Fundacion Omacha, 2016

As a result, 74 people were interviewed in four municipalities: Arboletes, Necoclí, San Juan de Urabá and Turbo, and four Coast Guard officers, two Harbor Master and a merchant.

Data were obtained on fishing sites, species captured in the different fishing operations. Regarding marine mammals, sightings and strandings were recorded (Figure 2.2), finding that 73 people have seen dolphins mainly in rainy seasons and 54 dead individuals, reporting 48 dolphin encounters in the Gulf of Urabá, and 37 sites that they report strandings (Figure 2.2). Many of the sites coincide with those of fishing, although incidental fishing is not common and if they are entangled they are released.

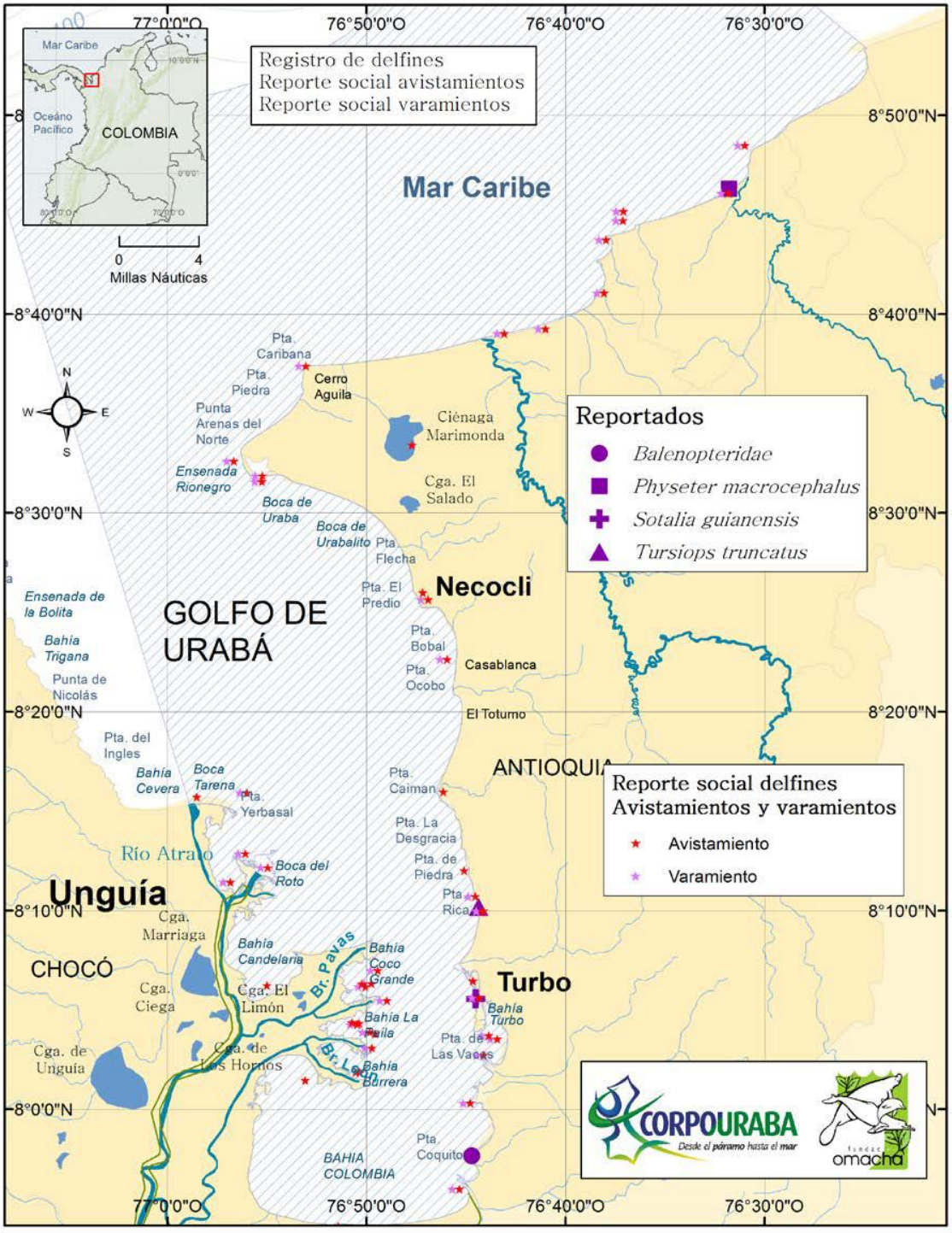

Figure 2.2 Reports of sightings and strandings of dolphins registered in the study of the Omacha foundation

Source: Fundacion Omacha, 2016

The people interviewed with illustrated guides, mainly recognize the presence of the gray dolphin (Sotalia guianensis) and the bottle snout dolphin (Tursiops truncatus) in commonly visited fishing areas such as Boca del Roto, Cerro del Águila, Mulatos and Bahía Candelaria, among others .

On the other hand, in relation to manatees in the Gulf of Urabá, their presence was corroborated by 57 of the interviewees. 32 sighting sites are reported, 12 correspond to places where they have seen stranded or dead manatees, with Boca El roto (n = 7) and Necoclí (n = 7) presenting the most reports (Figure 2.3).

Regarding the times of manatee sightings, it was not clear, that is: 26% of the respondents attribute the sighting to the rainy season, 12% at all times and 32% do not know.

Unlike dolphins, in relation to incidental fishing, these organisms are consumed and few would release them, which reflects an interest in the population (interviewed) of capture and consumption.

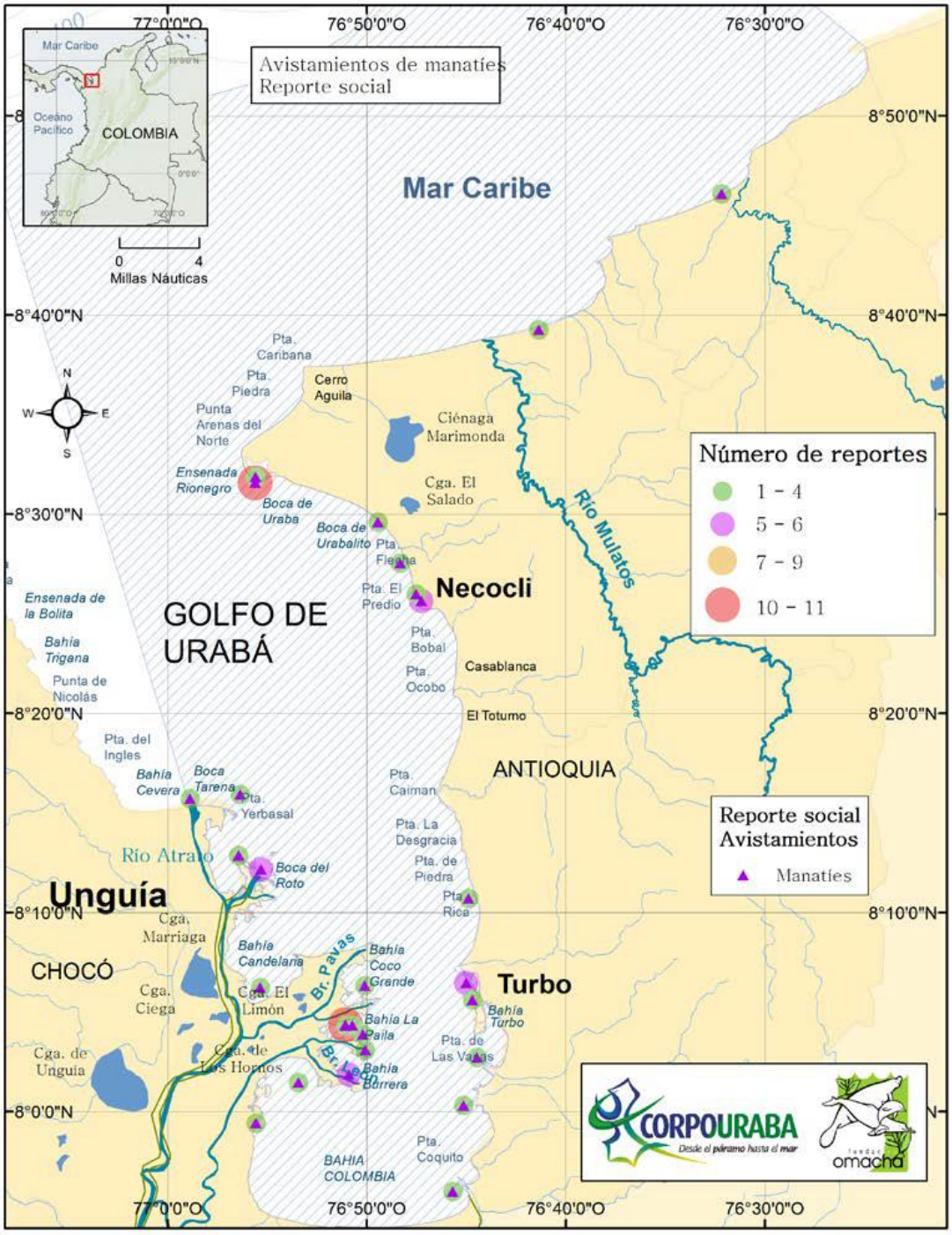

Figure 2.3 Reports of sightings and strandings of manatees registered in the study of the Omacha Foundation

Source: Fundacion Omacha, 2016

In relation to sea turtles were the most recognized group, with 95% of respondents who have observed them either on the beach, in water or in both environments. With 36 sighting sites (Figure 2.4).

Figure 2.4 Reports of sightings and strandings of sea turtles recorded in the study of the Omacha foundation

Source: Fundacion Omacha, 2016

Sea turtles in the Gulf of Urabá are historically recognized as they use several sectors of the gulf to nest and feed, however, the capture and looting of nests has decimated populations for years.

According to the reports, the hawksbill turtle (Eretmochelys imbricata) and the channel turtle (Dermochelys coriacea) were the most recognized (n = 49 and n = 47 respectively). Like manatees finding a turtle entangled, few would release it, others would consume or sell their meat.

As for the otters, "36 places where these animals were seen were reported, Necoclí (n = 8), Ensenada de río negro (n = 7), Boca El roto (n = 7) and Bahía Candelaria (n = 6)) presented the largest reports and unlike the previous groups, several internal marshes are included and close to settlements. "

"In Colombia, the neotropical otter (Lontra longicaudis) is present in most of the country's water bodies, such as the Cauca and Magdalena river basins, the swamps between Barranquilla and Santa Marta, the western flank of the Sierra Nevada de Santa Marta, and the center and south of the Guajira including swamps, wetlands and streams. However, in the Gulf of Urabá there are no published reports of the species, therefore the data provided by local knowledge on possible areas of distribution are a first resource in the knowledge of these populations.

Finally, with the aquatic transects carried out, five records of marine mammals were obtained, corresponding to the species Tursiops truncatus and Sotalia guianensis. Additionally, three records of cetaceans were obtained outside the sampling campaigns, identified up to the delphinidae family provided by the University of Antioquia and Corpouraba (Figure 2.5).

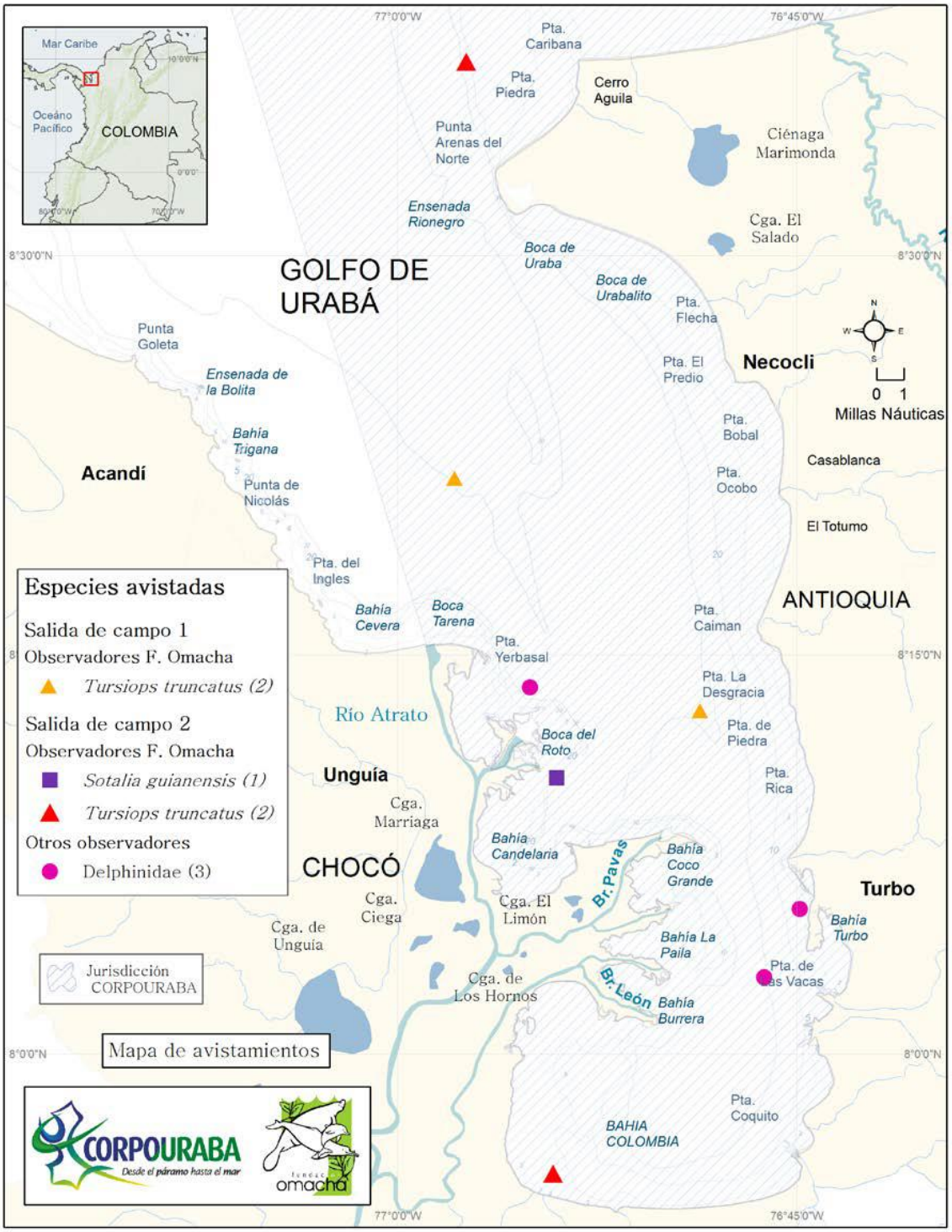

Figure 2.5 Registration of marine mammals through aquatic transects carried out in the study of the Omacha foundation

Source: Fundacion Omacha, 2016

In Photograph 2.1 and Photograph 2.2 you can observe the individuals sighted during the execution of the study in the Gulf of Urabá conducted by the Omacha Foundation.

Photograph 2.1 Individuals of Tursiops truncatus observed in the study conducted by the Omacha Foundation

Source: Fundación Omacha, 2016

Photograph 2.2 Individuals of Sotalia guanensis observed in the study conducted by the Omacha Foundation

Source: Fundación Omacha, 2016

With the results obtained, the Omacha Foundation concludes:

Local fishermen have encounters with dolphins throughout the year, especially during the rainy season, mainly recognizing the presence of the gray dolphin (Sotalia guianensis) and the bottle-nosed dolphin (Tursiops truncatus) in fishing areas commonly visited as Boca del Roto, Cerro del Águila, Mulatos and Bahía Candelaria, however, do not consider dolphins a consumer resource.

Semi-structured surveys confirmed the presence of the Antillean manatee (Trichechus manatus) in the Gulf of Urabá area, reflecting that it is associated with marshes, rivers and streams and faces threats associated with habitat consumption and degradation.

Based on local knowledge, it is evident that sea turtles are frequently seen in sites northeast and northwest of the Gulf of Urabá, and although knowledge about the group is growing, they still face threats of hunting and commercialization.

Although the knowledge of the Neotropical otter (Lontra longicaudis) is scarce, the information provided by the respondents, about distribution areas of this aquatic mammal in the Gulf of Urabá, showed an association with marshes, wetlands and streams as an advance in the knowledge of local populations.

Locations such as Cerro del águila, Ensenada de rio negro, Boca El roto and Bahía Candelaria were areas in which all the groups converge, suggesting that they are productive areas on which conservation and sustainable use efforts should be focused.

Taking into account that respondents' responses reflect the existence of threats to species under study such as hunting and habitat loss, it is suggested to develop research projects, environmental education and sustainable use with communities and authorities in the region to protect and conserve the populations and focus their use to other uses.

The target fish species reported in the interviews correspond to several families described in the bottle snout dolphin diet, suggesting that within the gulf there are food resources of interest to them and therefore several of the fishing sites used by the fishermen turn out to be the same where they spot dolphins.

The sightings made during the boat tours confirm the presence of the bottle snout dolphin (Tursiop truncatus) and the gray dolphin (Sotalia guianensis) in the study area, and suggest that the sighted groups use the gulf as a refuge and feeding area .

The few records of dolphins along boat trips suggest that Tursiops truncatus and Sotalia guianensis, previously reported species in the Gulf of Urabá area, may be displacing from the area or have a temporality in their distribution associated with the climatic times and the availability of food.

The low density of cetaceans in the gulf reported in this project may be due to the effort invested in the sampling campaigns, therefore it is recommended to continue monitoring to increase the

number of sightings to use statistical methods that yield ecological information of the species that inhabit the gulf.