
	MODIFICATION OF ENVIRONMENTAL LICENSE FOR THE CONSTRUCTION AND OPERATION PROJECT OF A PORT TERMINAL OF SOLID BULK CARGOES IN THE MUNICIPALITY OF TURBO			
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CHARACTERIZATION OF THE INFLUENCE AREA

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5. CHARACTERIZATION OF THE AREA OF INFLUENCE

5.3 SOCIOECONOMIC ENVIRONMENT

This chapter presents the characterization of the area of influence of the Construction and Operation project of a Multipurpose Port Terminal in Bahía Colombia de Urabá, in accordance with the terms of reference M-M-INA-05¹, the Methodology for the presentation of environmental studies (MAVDT, 2010)² and the Environmental Assessment Manual of the current Ministry of Environment and Sustainable Development - MADS. The content of this chapter is framed within the modification of environmental license of the project, consequently the information is a complement of the socioeconomic base line presented in a previous study and approved by the ANLA through Resolution number 032 of January 25, 2012.

The results presented in this section correspond to the analysis of the demographic, spatial, economic, cultural, archaeological and political-organizational dimensions of the communities in the project's area of influence. In the same way, the participation guidelines used to achieve the approach with the communities and public entities are described, in accordance with the constitutional criteria in force.

The area of influence of the socioeconomic environment of the project is characterized below, which consists of community participation guidelines and the description and analysis for each of the components: demographic, spatial, economic, cultural, archaeological, political-administrative and development trends.



The characterization of the social environment in which the present project is inscribed, takes into account relevant aspects of the municipality of Turbo and the township of Nueva Colonia and specific aspects of the El Canal's community, a settlement that is in the process of relocation and resettlement³ located in the Nueva Unión village.

The present information will enable the identification of the possible impacts that the project could generate to define management measures in accordance with the needs and potential of the population with which it interacts.

¹ MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT. Resolution 0112. (January 28, 2015) Whereby the terms of reference for the preparation of the Environmental Impact Study -EIA- required for the environmental licensing process of construction projects or expansion and operation of deep sea ports are adopted.

² MINISTRY OF ENVIRONMENT, HOUSING AND TERRITORIAL DEVELOPMENT - MAVDT. General methodology for the presentation of environmental studies. Republic of Colombia. Bogotá, 2010. 72 p

³ Process led by FUNDAUNIBAN

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It is important to highlight that in the Environmental Impact Study - EIA of 2009 and approved by the National Authority of Environmental Licenses - ANLA through Resolution number 032 of January 25, 2012⁴, the community of the El Canal settlement was established as a direct area of influence due to its proximity to the project and the development of a resettlement program was proposed for the dwellings located in the identified area.

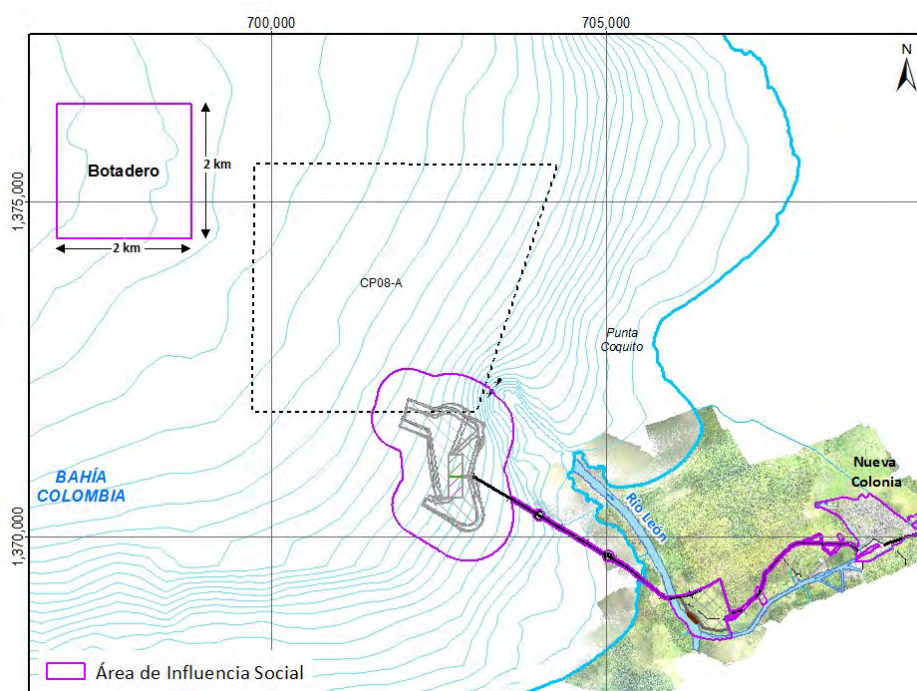




Figure No. 5.1 Area of social influence defined for the modification of the environmental license number 032 of January 25, 2012

Source: Aqua & Terra Consultores Asociados S.A.S., 2015

5.3.1 Participation and socialization with the communities

Under the policy guidelines for citizen participation in environmental management, participation is a prerequisite for sustainable development. Although environmental management, within the Environmental Impact Study of the "Construction and operation project of a multipurpose port terminal in Bahía Colombia de Urabá," has the objective of seeking sustainability in the relations between communities and

⁴ Grants the Puerto Bahía Colombia de Urabá SA Company the environmental license for the Project for the construction and operation of a port terminal of solid bulk cargoes of deep draft in the Colombia Bay, located in the jurisdiction of the Municipality of Turbo in the department of Antioquia.

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urban and rural ecosystems, to emphasize that for this one, fundamental criteria of integration and participation were established.

Taking into account the above, that participation as a principle of the social state of law established since the constitution of 1991, develops guidelines that are applied in a transverse and coherent manner, in order to improve the quality of life of the inhabitants, ensuring clear, precise information and reaching the sectors of society interested in the project, to ensure a broad, deliberate, conscious and responsible participation of citizens in the preservation of their rights and in the fulfillment of their environmental duties and, in general, in the environmental management of the project, fulfilling an effective function in the construction of sustainable development⁵.



Therefore, facilitating spaces for meeting, socialization and consensus among the parties involved, with different interests depending on the sustainability of the project, recognizes and legitimizes traditional processes of communication and consultation for the decision-making of the communities, in accordance with their Cultural characteristics.

Consequently, the criteria for the implementation of participation mechanisms with the communities of the area of influence were to:

- Establish spaces of socialization with the different interest groups, to maintain a constant flow of information about the development of the studies.
- Inform the changes and advances corresponding to the development of the Project to the community, municipal authorities and community representatives.
- Understand the diversity of perspectives and contribute to the construction of relationships.
- Provide spaces for recognition and feedback.
- Work with the perspective of expanding and strengthening the networks and relationships between the parties involved, considering the complementarities and reciprocities existing at the municipal and sectorial levels.

The program of information and participation of the project was directed to the authorities and municipal and departmental administrations, industrial sectors of the

⁵ MINISTRY OF ENVIRONMENT HOUSING AND DEVELOPMENT. Policy guidelines for citizen participation in environmental management. Bogotá, 1998.

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zone and living forces present in the area of influence of the project, as well as to the communities that will have some incidence in the project.

For the socialization of the project and the Environmental Impact Study for the modification of the environmental license, several meetings were held as follows:

5.3.1.1 EIA start-up meeting

In order to comply with the provisions of the EIA amendment, in regards to the socialization of the information, an information meeting was held before the start of the primary information collection activities with the representatives of the local authorities as well as the representatives of the Nueva Colonia and El Canal communities.

This meeting was held on June 26, 2015 in the facilities of the Public Library of the township of Nueva Colonia, with the participation of 72 people, including representatives of the Nueva Colonia and El Canal communities, officials of the AUNAP, CORPOURABÁ, Port Captancy, Prodesarrollo, Government House, fishermen representatives, among others.



In the socialization meeting, participants were clearly explained the main objective of the environmental impact study: Modification of the environmental license issued through the ANLA resolution number 032 of January 25, 2012. (Photo No. 5.1)

and in this way, they socialized:

- The Project's background (Licensing process)
- Technical characteristics
- Scopes of the project
- Project activities and stages

In the same way, the information related to the environmental impact study was socialized:

- Scopes of the study
- Preliminary area of influence
- Environmental characterization (Methodology for the collection of information). Demand for the use and exploitation of natural resources

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Photograph No. 5.1 Initial socialization meeting to modify the current environmental license



Source: Prepared by Aqua &Terra Consultores Asociados S.A.S

As a support to the meeting, a report was prepared, where the topics discussed, and their development were recorded, as well as having the respective photographic, film and assistance record.

It should be noted that the minutes were approved by two representatives of the audience representing the attendees, and a copy of it was left in the Nueva Colonia's library as documentation support for the meeting, as requested by the attendees (Annex 5.3.1.1 and Annex 5.3.11).

The means of communication used to convene the communities of Nueva Colonia and El Canal, as well as local, environmental and maritime authorities, consisted of letters, which were delivered personally and / or sent via email to each of the people.

The letters contained the following information: Date and place of issue, name of the entities reporting, name of the project and number of the contract, full names and surnames of the person, name of the institution to which it is addressed, position, purpose of the meeting or message, place, date and time of the meeting or

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geographical and temporal specifications of the message, the theme of the meeting and the importance of their contributions for the development of the meeting.

5.3.1.2 Meeting with CORPOURABÁ

The meeting with the corporation was a first approach with the institution in the process of the modification of the environmental license. In general, a presentation of the project is made and the activities to be carried out for this purpose were explained.

In this order of ideas, a description was presented to CORPOURABÁ officials about the main environmental and social aspects susceptible to be affected and indicated in the abiotic and biotic components of the terms of reference, especially the topics related to water resources, fauna and flora present in the area, both from the mainland and the maritime area to intervene, in addition to the intervention in the reserve area. In the same way, secondary information was requested from the area regarding existing permits, protected areas in the zone and others.



The Corporation undertook to analyze the studies subject to modification, once the document was officially received for review. No comment was presented that had not been identified in the studies framework.

5.3.1.3 Meeting with AUNAP

On June 10, 2015, an institutional visit was made to the offices of the AUNAP located in the municipality of Turbo, with the aim of publicizing the activities that would be carried out with fishermen from the Nueva Colonia and El Canal communities, as well as inviting them to the initial socialization meeting (Annex 5.3.1.6).



Photograph No. 5.2 AUNAP Institutional Visit
Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

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5.3.1.4 Meeting with Puerto DIMAR's Captaincy

On June 10, 2015, an institutional visit was made to the offices of the Harbor Captaincy's Office located in the Municipality of Turbo, with the objective of publicizing the activities that would be carried out within the framework of the Construction and Operation Project of a Multipurpose Port Terminal in Bahía Colombia - Urabá, as well as inviting them to the initial socialization meeting and activities (Photograph No. 5.3) Annex 5.3.1.4



Photograph No. 5.3 Port Captaincy Meeting



Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

5.3.1.5 Impact evaluation meeting

In order to comply with the information and participation guidelines of the study, the second meeting was held on September 29 for the socialization of Impacts and environmental management measures for the modification of the Environmental License for the Construction and Operation Project of a Port Terminal of Solid bulk cargoes of Great Draft in Bahía Colombia

The main objective was to provide a space that allows the community to know the impacts found in the study and the planned management for them, offering the opportunity to participate and contribute if there are impacts that are relevant to be included in the study by carrying out the following activities:

- Presentation of the Project -Puerto Antioquía: Technical characteristics, scope and activities of the project
- Advances of the EIA: Scope, components, stages, activities, area of influence, environmental characterization, environmental zoning and management, compensation for biodiversity loss, permits requested for use, and use of natural

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resources (catchments, discharges, etc.). 1% Investment and the contingency plan

- Workshop "Workshop on socialization of impacts and environmental management measures
- Space suggestions, questions and answers

5.3.2 Demographic component

From the Environment and Development Conference, held in Rio de Janeiro in 1992⁶, several theories were established that coincide in linking the population's characteristics with the changes in the environment, to affirm about the consequences in the level of prosperity and consumption, that is to say, that the effects on the environment are a product of the population size, the wealth represented by the product per capita or the level of consumption and the technology that represents the efficiency of production.

In this regard, "the planning activities of the economic and social development of the territorial entities and of the subregions, as well as the definition of institutional programs both in the government and in the private enterprise, require to know what has been the demographic dynamics of the various territorial dimensions and consider their future prospects in terms of size, structure, spatial distribution and other indicators of population growth."⁷



The demographic processes determine the structure of a population as well as its evolution, its indicators that allow us to analyze the existing population groups and determine their population dynamics. In the present section, the information related to the demographic component for the major and minor territorial units identified in the study is described.

Considering the above, the following characteristics will be analyzed:

- Population Dynamics
- Demographic Trends

⁶ UNITED NATIONS. Rio Declaration on Environment and Development. Rio de Janeiro, 1992 [Online] <http://www.un.org/spanish/esa/sustdev/documents/declaracionrio.htm> [Accessed on October 13, 2015]

⁷ GOVERNMENT OF ANTIOQUIA, ADMINISTRATIVE DEPARTMENT OF PLANNING. Statistical yearbook of Antioquia 2008. Chapter3. Medellín, 2010.

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- Unsatisfied Basic Needs Index (NBI) of the Turbo Population

For the smaller territorial units, the township of Nueva Colonia has been previously indicated, and the settlement called El Canal located in the village of Nueva Unión. For the above and, in compliance with the terms of reference of the ANLA M-M-INA-05, the following aspects shall be considered:

- Characterization of population groups
- Population Dynamics
- Demographic trends
- Structure of the Population
- Forms of Land Tenure
- Presence of population in displacement situation
- Settlement patterns.

5.3.2.1 Major territorial unit: Municipality of Turbo



The analysis for the major territorial unit is based, mainly, on the data consulted on the website of the National Administrative Department of Statistics DANE, especially in the census conducted in 2005⁸, its current conciliations and projections; In addition, departmental and municipal order reports are taken into account, such as the Municipal Development Plan 2012-2015 "Taking Back the Road to Progress"⁹, the Territorial Ordinance Plan ¹⁰, the baseline documents prepared by the UNIBAN Foundation among others.

This section presents the demographic characteristics of the municipality of Turbo that comprise the territory considered as the major territorial unit of the project. The composition and structure of the population, the spatial distribution by areas, the

⁸ NATIONAL ADMINISTRATIVE DEPARTMENT OF STATISTICS -DANE-. General Census 2005. [online] <<http://www.dane.gov.co/index.php/esp/poblacion-y-registros-vitales/censos/censo-2005>> [Quoted on October 13, 2015]

⁹ 2012-2015 MUNICIPAL DEVELOPMENT PLAN "Retaking the path of progress" Turbo, Antioquia. [Online] [http // www.turbo-antioquia.gov.co](http://www.turbo-antioquia.gov.co) [Quoted on August 3, 2015]

¹⁰ TERRITORIAL ARRANGEMENT PLANNING. Turbo, Antioquia. Municipal agreement 022 of 2012. [online] [http // www.turbo-antioquia.gov.co](http://www.turbo-antioquia.gov.co) [Quoted on August 15, 2015]

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population dynamics in terms of birth, mortality and quality of life are the topics that will be addressed to understand the dynamics in which the municipality is registered.

The Municipality of Turbo is in the extreme northwest of the department of Antioquia in the so-called Urabá Antioqueño, which is part of the biogeographical Chocó.

Located in the north end of the department, it limits the north with the Caribbean Sea and the municipality of Necoclí; to the east, with the municipalities of San Pedro de Urabá and Apartadó and with the department of Córdoba; to the south, with the municipalities of Carepa, Chigorodó and Mutatá, and to the west, with the department of Chocó (See Figure No. 5.2).

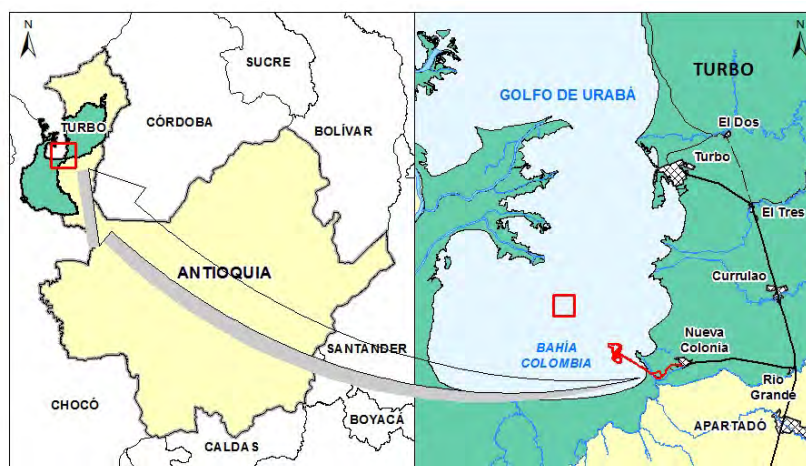




Figure No. 5.2 Major territorial unit. Municipality of Turbo

Source: Aqua & Terra Consultores Asociados S.A.S., 2015

The municipal seat is 2 m a.s.l, the average temperature is 28 ° C, the distance from Medellín is 373 km. “The road Carretera al Mar” is the main access road to the Municipality, along with air transport from the Department's capital city to 35 minutes by plane¹¹.

The municipality of Turbo is the largest in the region of Urabá, with a total of 374,210 hectares. It is divided into townships and villages following the organization and political division of the municipalities in the country; It has 19 townships, each of them subdivided into villages, some of them very small and others with important population centers (Table No. 5.1). It should be noted that among the townships is

¹¹ Municipality of Turbo. Comprehensive Single Plan for 2006. Social Action, Preseagrur and Department of Antioquia.

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the one of Nueva Colonia, and the village of El Canal, which are considered in this document as Minor Territorial Units, which will be described below.

Table No. 5.1 Division of townships and villages of the Municipality of Turbo

Township	Villages	Township	Villages
Lomas Aisladas.	La Primavera, La Te Real Cocuelo, La Tempestad, Mono Macho, Cocuelo San Felipe, Cerritos, Las Babillas, El Cocuelo El Veinte, El Kilómetro 25, La Leona, Tumaradosito.	Los Mangos Medios.	Suniki, Suriki, Los Manatíes, La Pola, León Abajo, Santa Fe de los Mangos, La Rosita.
Bocas del río Atrato.	Roto, Leoncito.	Bella Vista.	Peñitas, Larga Boba, Pueblo Regado, Los Sábados.
Nuevo Oriente.	La Unión, Ranchera, La Esperanza, Mil Pesares, Puerto Rico, Palodeagua, Villa Rosa, Nueva Estrella, Buenos Aires.	Blanquiset.	Florida, La Pujarra, Tumaradasito, El Cedro, Sal si puedes, El Caimán.
Macondo.	Villa Rosa, Tumaradosito, Cuchillo Blanco, Cuchillo Negro, California, Villa Eugenia, Eugenia Media, Eugenia Arriba, Guacamayas.	Río Grande.	California, Comunal la Suerte, Gustavo Mejía, Arcua Central, Arcua Arriba, La Cucaracha, Aguas Frías, Palos Blancos.
El Tres.	Las Garzas, Casanova, La Esperanza, La Deseada, La Trampa, El Limón, Limón Medio, Caimancito, La Arenera, Hacienda Currulao, Tío Gil, Once de Noviembre, La Arenosa, Barro Colorado, Paque Más, Las Camelias, El Esfuerzo, La Tachuela, El Tonel, Guadualito, Santa Inés.	Nueva Colonia	Monte Verde 1, Monte Verde 2, Puerto Cesar, La Pola, El Recreo, Nueva Esperanza, Puerto Boy, San Marcanda, Calle Larga, Honduras, Coquitos, Comunal San Jorge, La Teca, El Canal, Punto Rojo.
Nueva Antioquia.	Santa Rosa, Las Flores, Las Monas, El Venado, Ahuyama, La Carbonera, Ahuyamita, Playa Larga, Boca Limón, El Limón, Boca de Tío López, Pueblo Galleta, Caraballito, Zabaleta, Oviedo, Caraballo.	Alto de Mulatos.	Tío López Alto, Juan Benítez, Tobiribio Medio, El Volcán, Caracolí, Las Playas.
San Pablo Tulapa.	La Pítica, La Coraza, Brazo Izquierdo, Cielo Azul, El Indio, El Porvenir de Tulápa, La Pita, Yoya, Nueva Tulipa, La Naranja, Isaías, Isaías Arriba, San Andrés de Tulapa.	Pueblo Bello.	Galilea, Sinaí, Bonga, Lucio, La Ilusión, Mono Macho, La Unión, La Esperanza, La Fría, Pueblo Bello, El Bagual.
Punta Piedra.	Caimán, Tié, Bajo Cirilo, Cirilo Medio, Alto Cirilo, Veintisiete de Diciembre, Siete Vueltas, Cope.	Nueva Granada.	Mata de Plátano, Siete de Agosto, Nueva Colombia, El Palmito, Kuwait, Cienagueta.

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Township	Villages	Township	Villages
San Vicente del Congo.	Casa Roja, Makendal, Guayabal Abajo, Guayabal Arriba, El Congo, El Bongo, Los Enamorados, El Azúcar, La Ceniza, El Achote, Cacahual Abajo, Coquitalito, Altos de Santa Fe, La Doncella, Las Mantecas, Alto Manteca.	El Dos.	Las Mercedes, Los Indios, El Cahual, Santa Bárbara Abajo, Santa Bárbara Arriba, río Turbo, La Pedregosa, Las Cañas, San Felipe, La Playota, Manuel Cuello, Aguas Claras, El Porvenir, Villa María, Villa María Arriba, Piedresitas, Bocas del río Turbo.
San José de Mulatos.	El Algodón, Tuntún Abajo, Tutún Arriba, Santa Fe de la Islita, La Islita, El Olleto, Semana Santa, Brunito Abajo, Brunito Medio, Brunito Arriba, Mata de Plátano Arriba, Los Moncholos, Puya Abajo, El Volcán, Aguas Prietas, Santiago de Urabá, Manta Gorda, Puyita, Puya Medio, Puya Arriba.		



Source: Development Plan 2008-2011. Quoted by Puerto Bahía Colombia de Urabá. S.A. Environment Effect investigation. Construction and Operation of a Turbo Antioquia Port Terminal of Solid bulk cargoes. Bogotá, July 2010. P. 446-448

According to the population census conducted by the DANE in 2005, it was found that the municipality of Turbo houses a population of 122,780 inhabitants, which are divided as follows: 47,747 people are located in the municipal seat, which corresponds to 39% of the total population; and 75,033 people live in rural areas, for a percentage of 61%, as shown in Table No. 5.2 and Figure No. 5.3. It is important to highlight the high concentration in the rural area, distributed in the townships and villages in the municipality of Turbo.

Table No. 5.2 Population Distribution -Municipality of Turbo

Location area	2005 Census Population
Urban	47.747
Rural	75.033

Source: Prepared by Aqua & Terra Consultores S.A.S 2015. With information taken from DANE. General Census Bulletin 2005 Turbo Profile. Antioquia

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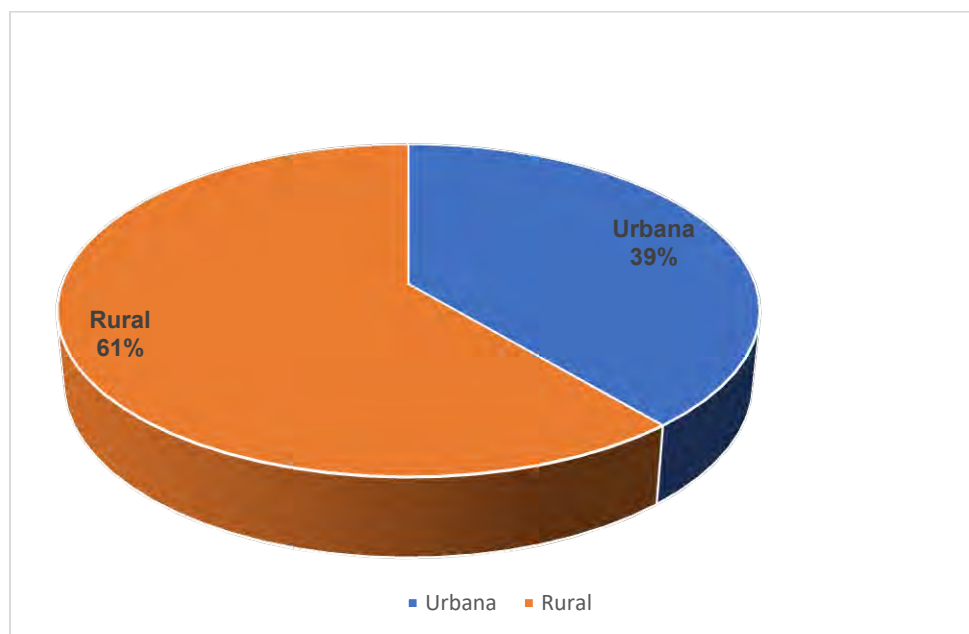


Figure No. 5.3 Turbo Population 2005 Census

Source: Prepared by Aqua & Terra Consultores S.A.S with information taken from DANE. General Census Bulletin 2005 Turbo Profile. Antioquia

5.3.2.2 Population Dynamics-Turbo Municipality

These processes are old and diverse. In the early sixteenth century the Spaniards met with indigenous peoples who inhabited the gulf banks, the Serranía de Abibe and the Caribbean savannas of the current departments of Córdoba and Sucre. In 1509 Alonso de Ojeda founded San Sebastián de Urabá on the eastern margin of the Gulf of Urabá. This region was a territory of difficult control for the Spanish crown, due to the hostilities of the Cuna Indians (who are now known as Tule) and the siege of the English pirates who sailed on the shores of these lands and established both commercial as well as war, harassing the Spanish colonizers¹².

Discovering lands in the name of Spain, Don Rodrigo de Bastidas invaded the Gulf of Urabá in the year 1501; three years later (1504), Juan de la Cosa is named constable of the Gulf of Urabá who loots, massacres and burns the indigenous villages of the region; in 1509 founds San Sebastián de Urabá, in Necoclí. In 1510, Juan de la Cosa and Vasco Núñez de Balboa founded the first city on the mainland

¹²STEINER, Claudia 2000. Imagination and power: the encounter of the interior with the coast in Urabá, 1900 - 1960. Medellín: University of Antioquia. Quoted document HISTORICAL CONTEXT, ECONOMIC AND HEALTH CONDITIONS IN THE REGION OF URABÁ [accessed July 9, 2015 <http://www.nacer.udea.edu.co/pdf/libros/libro4/capitulo3.pdf>]

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in America: Santa María la Antigua del Darién in the Chocoano Urabá, which was abandoned and burned down in 1524 as a result of Spain's incapability to control pirates and indigenous people; reason that motivated, in 1540 the prohibition of navigation by the waters of the Gulf of Urabá and by the rivers León and Atrato. In 1787, after having fought for many years with the Spanish army, Bernardo Mundigalla, signed in Cartagena a capitulation with Archbishop Caballero y Góngora, through which he recognizes the King and buries the weapons of war. Two years later (1789), commercial traffic of the Atrato was opened, suspended since 1540.¹³

On August 28, 1840, President José Ignacio de Márquez disposed of the Turbo Foundation, for which he cedes eight thousand “fanegadas” (1 fanegada= 0.66 hectares) of wasteland. Seven years later (1847) President Tomás Cipriano de Mosquera erects Turbo as a Parochial Township. After this momentous event in the history of Turbo, several geopolitical changes occur around its membership: in 1848 it passed into the jurisdiction of the department of Antioquia, in 1850 Turbo was annexed to Chocó, in 1856 it was transferred to the state of Cauca. Meanwhile, the parish township of Turbo was established as a population. Their first settlers came from Chocó, Panama and Cartagena, settled in small plots along the Chucunate canal, built their straw huts and planted rice, yucca, yam, banana, coconuts and fruit trees on their plots.¹⁴ Fishing and hunting were abundant, and trade was carried out by barter, exchanging surplus production. The medicine was exercised by botanists and midwives. The tagua and rubber mobilized migrants to Turbo, which was communicated by sea with Cartagena, Panama and Colón, and by the Atrato River with Quibdó. Trips to Medellín, according to the time of year, were done on foot or on mule and lasted from fifteen days to a month.

In 1905, Turbo returns definitively to Antioquia. In this same year the first school was founded. In 1909 the exploitation of rubber was completed and in 1920 the exploitation of tagua. In 1926 the “Road to the Sea” highway begins, finished in 1954, the port is linked at the end with Medellín and the relations that had been before with Panama and Cartagena turn towards the interior of the country. With the arrival of the highway begins the pronouncement of Antioquia. Muleteers, sawyers, political refugees and evaders of the law colonized to side and side of the highway, founding woodlands such as Apartadó, Currulao, El Dos and El Tres. The highway also promoted agribusiness in the region, that is why in 1959 the fruit seller Sevilla was established in Turbo; then, in 1963 the first banana crop was made and the following year (1964) the first shipment was made.

¹³ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. y ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 438.

¹⁴ Development Plan 2008-2011. Quoted by Puerto Bahía Colombia de Urabá. S.A. Environmental Impact Study. Construction and Operation of a Port Terminal of Solid bulk cargoes in Turbo, Antioquia. Bogotá, July 2010. P. 437.

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In 1965 there were already seventeen thousand hectares of bananas planted in the region and livestock activity was growing. Plantain cultivation allows the farmers subsistence, since the instability of the prices of corn and cassava caused a decline in production and gave rise to the marimbera bonanza in the 1970s and the bonanza of coca in the 1980s. In the 1990s the violence of the actors in conflict who fight for the dominion and possession of the territory, giving rise to the displacement of the peasants, intensifies.

Turbo is an international port without a dock, which supplies bananas to all countries in the world, it is a river port of the Atrato river basin that communicates with Quibdó and intermediate ports, it is a port of cabotage that supports a regular trade with Cartagena, the coasts of Urabá Chocoano and Colombo-Panama. Today, the Gulf of Urabá, in its greater extension, belongs to the municipality of Turbo from Punta Caimán to Bocatarena, including the seventeen mouths and the Atrato River delta".¹⁵

The town centre of Turbo has a double condition: it is marine, and it is urban, that is to say, certain amphibious condition allows its inhabitants to perform in both environments that feed back the daily life of the headwaters. The seafarer feeds the condition of the fishermen stationed in the coastal neighborhoods and of the migrant settlers who have made this place the place to reproduce the patterns of settlement of the Atrato in the canals that penetrate to its streets or in the neighborhood streets that they have robbed from the sea. And it is also urban because the commercial dynamics, product of its port condition, has developed the sector of the services, the commerce and the monetary exchanges in which another type of behaviors and relations occur far from the traditionally domestic ones of the field.¹⁶

5.3.2.3 Population trends Turbo Municipality



According to the 2005 DANE¹⁷ General Census and its population projections, the population evolution of the Municipality of Turbo is marked by a considerable population increase since year 1990 in which, the population had 80,673 people, while for the year 2011, the population was constituted by 143,392 inhabitants.

On the other hand, the population located in the heading area and in rural area or rest, went from 29,022 to 56,694 and from 51,651 to 86,698 respectively,

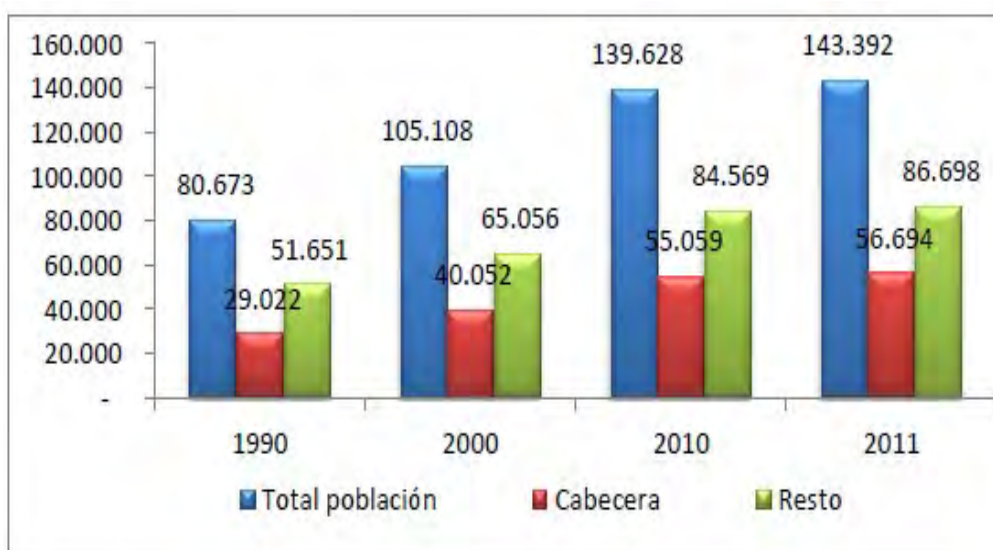
¹⁵ Ibid., p. 438.

¹⁶ Ibid., p. 439.

¹⁷ MINISTRY OF LABOR, Turbo production profile, Red Ormet 2013.p.18

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In terms of growth rates, the population grew by 30.29% between 1990 and 2000, while in the 2000-2010 period it grew by 32.84%, and between 2010-2011 it grew at a rate of less than 2, 7% The population located in the headland represented 38.3% of the total; On the other hand, the population located in the rest constituted 61.7%. At this point it is expected that the considerable increase between 2000 and 2010 is due to the population census conducted in 2005, which corrects the projections made by the DANE.¹⁸ (See Figure No. 5.4)





Total population, Men, Women

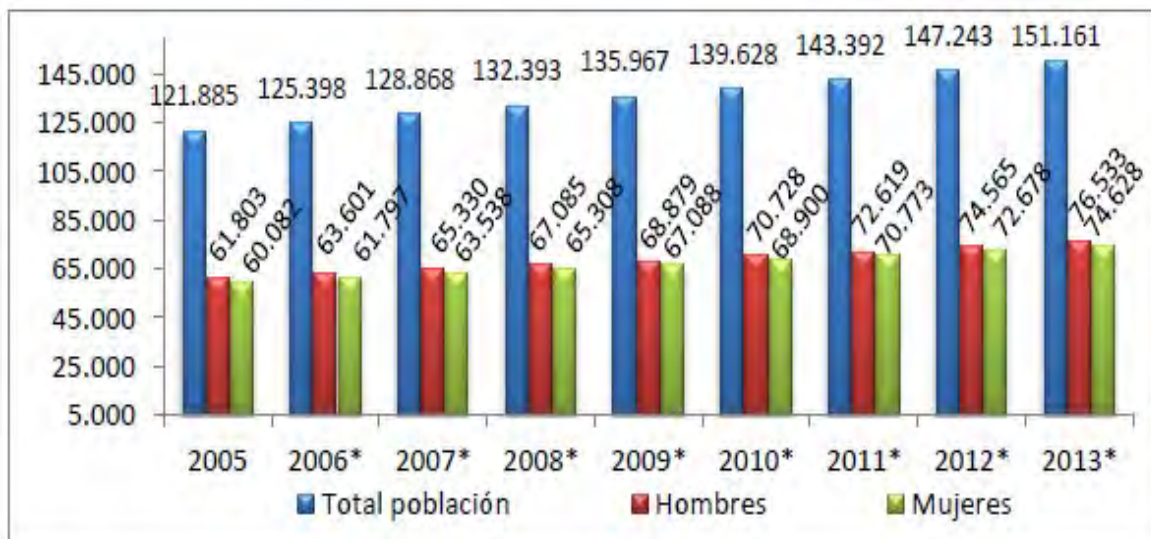
Figure No. 5.4 Behavior of the population by location in the municipality of Turbo.
Source: Ministry of Labor, Turbo productive profile with information from DANE 2005

The population distribution by gender for the period 2005-2013. According to the projections made by the DANE, the population is distributed in a similar way between men and women for each of the years. Women on average make up 49.33% of the population, while men average 50.67%. In general, for the period analyzed, a total growth rate of 24.01% was observed and with an average annual growth of 2.39%¹⁹. (See Figure No. 5.5)

¹⁸ Ibid.,

¹⁹ MINISTRY OF LABOR, Op., cit. p. 18



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Total population, Men, Women

Figure No. 5.5 Projections of the population of the major territorial unit by gender 2005-2013.
Source: Ministry of Labor, Turbo productive profile with information from DANE 2005

Making the comparison until this year we have between 2005 and 2015, the population located in the headland represented 40% of the total; for its part, the population located in the rest constituted 60%, as can be seen in Figure No. 5.6

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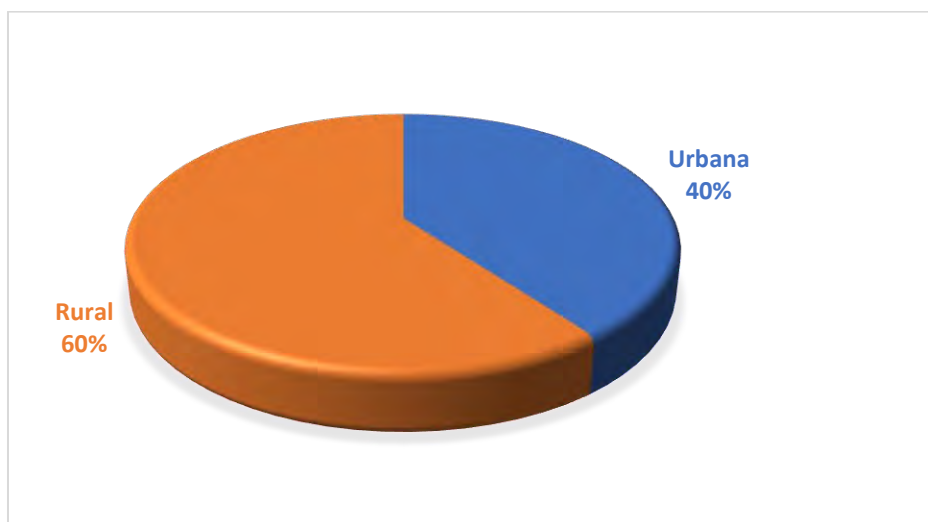


Figure No. 5.6 Population projection of the major territorial unit in the urban and rural area for the year 2015.



Source: Prepared by Aqua & Terra Consultores S.A.S with information taken from DANE 2005

It should be noted that in Turbo there is a significant number of floating population, since a large part of the inhabitant population of the Urabá Chocoano, which depends on Antioquia services or moves to Apartadó, moves by river, leaving the Gulf of Urabá by any of the mouths of the Atrato River. Likewise, the banana activity attracts population, whose expectations are to find employment.

5.3.2.4 Displacement in the Municipality of Turbo

Different situations presented in the last 3 decades have had an impact on the processes of mobilization of the population of the Urabá region and specifically in the municipality of Turbo. At the end of the 70s and the beginning of the 80s, drug trafficking (by that time of marijuana), then the expansion of livestock, later the expansion of banana production, led to pressure on the lands of small farmers located along of the Guapá-Lomas Aisladas highway. These territories have been changing their productive vocation, but also their land tenure, to the extent that the socio-political dynamics of the region is changing. The result is that the first inhabitants of the area, small farmers, had to move at some point mainly towards the Serranía, in the neighboring municipalities of Chigorodó and Carepa, or towards the flood plains of Mutatá (Bajirá and neighboring villages) and the municipality of Rio Sucio (Chocó)²⁰.

²⁰ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. Op. cit. P. 451

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Of the municipalities of the banana axis, Turbo is the one that recorded the largest number of invasions during the 60s, 70s and 80s. These were carried out in different farms of Currulao, Dos, Tres, Rio Grande, Nueva Colonia, Coldsas, Punta de Piedra, on areas on the beach shores and in urban areas. Many of these invasions were legalized by INCORA, which also awarded and delivered titles to properties that did not yet have their deeds.²¹

The main areas of displacement are those of the Serranía and Pan-American villages, whose biggest attack happened since 1995 due to the territorial struggle between guerrillas and paramilitaries. Many people from San José de Mulatos, Nueva Antioquia, San Vicente del Congo, Pueblo Bello and El Alto de Mulatos came out of the Serranía, who have had partial returns and settlement of new settlers; of the Pan-American and the flood plains, the Nuevo Oriente and Blanquicet and the near villages on both sides of the road were almost uninhabited²².

The phenomenon of displacement has generated three shelters in the urban area of more than two years, which were taken provisionally and still have no solution, these are those of the Santo Ecce Homo, the sister Laura and the Covered Coliseum²³.

The municipality is both a receiver and an expeller of displaced persons, according to the statistics of the Presidential Agency for Social Action, the municipality of Turbo, as it is the first municipality in Antioquia that expels the most population and receives the most population in a situation of forced displacement, the most critical is the massive displacement due to its effects and social impacts²⁴. (Table No. 5.3).

Table No. 5.3 Displaced population of the Major Territorial Unit: Municipality of Turbo

Individual Displacement		Massive Displacement		Total population expelled
Men	10.322	Men	13.598	23.920
Women	10.931	Women	13.189	24.120
Individual total	21.253	Masive total	26.787	48.040

Source: Presidential Agency for Social Action Statistics Displaced Population. 2009. Cited by Puerto Bahía Colombia de Urabá S.A. and Araujo Ibarra.

The municipality expels 48,040 people and receives 52,619 people in situation of displacement, this means that 4,579 people represent a positive demographic balance, which end up living in the municipality and demanding basic social services. A municipality with these characteristics cannot efficiently being planned and will always have problems to provide optimum quality of life²⁵. (See Table No. 5.4).

²¹ Ibid.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.



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Table No. 5.4 Receiving population. Major Territorial Unit: Municipality of Turbo

Individual		Masive		Total Population Received
Men	8.199	Men	18.351	26.550
Women	8.170	Women	17.899	26.069
Individual total	16.369	Massive total	36.250	52.619

Source: Presidential Agency for Social Action Statistics Displaced Population. 2009. Cited by Puerto Bahía Colombia de Urabá S.A. and Araujo Ibarra

5.3.2.5 Unsatisfied Basic Needs Index (NBI) Municipality of Turbo



In accordance with the definition of the IDEAM, the index of unsatisfied basic needs identifies the proportion of people and / or households that have any (one or more) of the needs defined as basic to subsist in the society to which the household belongs. It includes infrastructure conditions and is complemented with indicators of economic dependence and school attendance.

- Inadequate housing: Expresses the housing shortages in terms of the physical conditions of the homes where the households reside.
- Inadequate services: Identifies the non-access to minimum sanitary conditions, refers to public services.
- Critical overcrowding: Three or more people per room, including living room, dining room and bedrooms and excluding kitchen, bathroom and garage.
- High economic dependence: With more than three dependents per person employed and the head has less than three years of schooling.
- With school absenteeism: With at least one child between 7 and 11 years of age, relative of the head of household, who does not attend an educational center.
- Misery: Those people or households that have dissatisfied more than two needs defined as basic.

The Index of Unsatisfied Basic Needs of the municipality of Turbo is very high, comparatively with the national average (27.78%), since the global index for the municipality is 67.38%, corresponding to the urban area 57.49% and rural area 73.67%.²⁶

The township has critical poverty rates, where a high percentage of its population is in strata 1 and 2, recognized as poor. More than half of the population is stratum 1,

²⁶ DANE. 2005 Census.

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which is equivalent to being in conditions of misery because they have all, or almost all, unsatisfied basic needs (Table No. 5.5).

Table No. 5.5 Indicators of Poverty and misery in the Major Territorial unit. Municipality of Turbo

POVERTY BY NBI, 2005		
Area	% NBI	% Misery
Urban	57,49	32,80
Rural	73,67	34,70

Source: DANE. 2005 Census.

5.3.2.6 Minor territorial units: Nueva Colonia and El Canal



The minor territorial units identified for the present study were the town center of the township of Nueva Colonia, as it was an obligatory passage to the site of the future port, and the community of the El Canal settlement (See Figure No. 5.1.).

In this section, the characteristics of the population of the Nueva Colonia corregimiento and the Canal settlement are analyzed, from their social dynamics, population growth, evolution and structure.

It is important to note that, Puerto Bahía Colombia de Urabá S.A. prepared the Environmental Impact Study in 2009, considering the settlement of the El Canal community as a direct area of influence; evidencing from that date the need to be relocated due to their housing conditions and proximity to the project.

However, due to the social dynamics and needs of the Canal community affected by the winter wave that occurred in the year 2010 - 2011, on October 2, 2012 the FUNDAUNIBAN Foundation, initiated a plan for relocation and resettlement of the community through the Program "... more than homes we build community ...", under which the social accompaniment of families has been carried out to link them in the construction project of their new homes.

During the studies of the current modification of the environmental license, the baseline survey was carried out in the socioeconomic component, prior to a meeting with the families to explain the purpose of the activity and have the accompaniment and participation of them (See Photograph No 5.4). After this, the families were visited in their respective homes to carry out the characterization of the existing social units.

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The present information was raised with the accompaniment of the community, considering the terms of reference issued by the National Authority of Environmental Licenses (ANLA)²⁷.

Attached are the socioeconomic cards filled out with their respective photographic record (Annex 5.3.4).





Photograph No. 5.2 El Canal Community meeting and characterization to families.
Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

It is important to point out that, between June 27 and 30, 2015, dates in which the baseline survey of this study was conducted, the families of the El Canal settlement were still located in the place and conditions that are described in this chapter; because they were still in the framework of the relocation and resettlement plan led by FUNDAUNIBAN.

It can be seen in Figure No. 5.7. its current and future location, for existing families, to be referred to as Nuevo Canal.

²⁷ MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT. Resolution 0112. (January 28, 2015) Whereby the terms of reference for the preparation of the Environmental Impact Study -EIA- required for the environmental license process of the construction or expansion and operation projects of large seaports are adopted.

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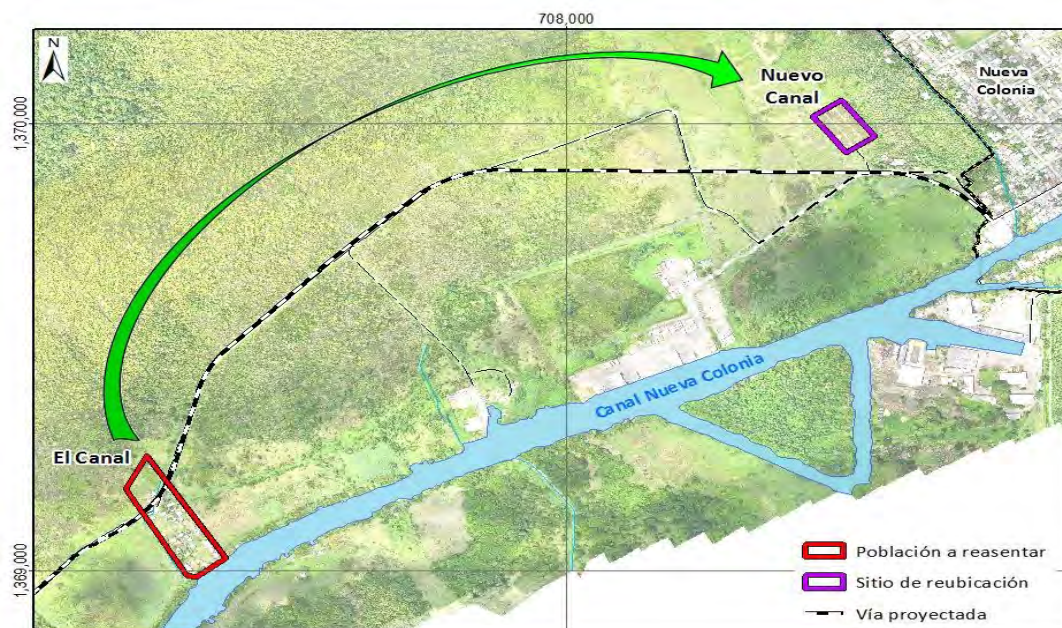


Figure No. 5.7 Location of the population belonging to the Minor Territorial Unit: El Canal
Source: Puerto Bahía Colombia de Urabá. S.A. Environmental Impact Study. Construction and Operation of a Port Terminal of Solid bulk cargoes in Turbo, Antioquia



The El Canal settlement is located 2 km away from the urban area of Nueva Colonia, Municipality of Turbo. It is accessed by unpaved roads or by water; there is no regular transportation.²⁸

In several documents it is recognized as Nueva Union or El Canal, name recognized by the community (Photograph No.5.5).

Although politically and administratively belong to the municipality of Turbo, depend for their activities of purchases and services of the municipality of Apartadó, due to the proximity and ease of transportation with the municipal seat of this municipality.²⁹

²⁸ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 456.

²⁹ Ibid. P. 453.

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Photograph No.5.5 Minor Territorial Unit. El Canal Settlement

Source: Aqua & Terra Consultores Asociados S.A.S., 2015



5.3.2.7 Population dynamics

Minor territorial unit of Nueva Colonia

The Township Nueva Colonia is conformed by 20 villages and was declared township the 23 of July of 1983.

The territory of this township of Turbo was adverse, with natural forest, especially catio trees that were exploited by the company Maderas del Darién (formerly Maderas Caribe); then with the arrival of the company Frutera de Sevilla in 1960, these lands were suitable for the cultivation of banana by drainage, to lower the water table, making them more suitable and more productive.³⁰

³⁰ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 456.

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The company Frutera de Sevilla built the Nueva Colonia canal that flows into the León River, very close to the Gulf, then built its docks for banana boarding and camps for its workers and did the same in Zungo and Casanova.

Later, some people who were engaged in fishing and unloading the fruit brought in trucks from the farms to the pier, independently, began to build their ranches around the camps of the company and that was how the farmhouse started growing slowly, until in 1980 some banana plantations decided to dismantle their camps and encourage workers to invade, with the promise of giving them the construction materials, since this removed the obligation to provide housing and education to workers and their children.

It was like this that in Nueva Colonia the 29 de Noviembre invasions with more than a thousand homes appeared, the neighborhoods El Castillo, San Sebastián, 24 de Diciembre with more than 15 families. Other neighborhoods are: Centro, San Diego, Santo Domingo, San José, Calle Larga, Balsilla, Caribe, San Joaquín, Probán, Las Flores and Rabo Largo. Before 1980, Nueva Colonia had about one thousand six hundred (1600) inhabitants.³¹

This township has been in the last 15 years, both expeller and receiver of community, for reasons of forced displacement. It is important to note that the conflict over territoriality in the area has been going on for more than 20 years, due to the growth of the production of extensive cattle ranching, plantain and bananas initially, later in some regions of the Antioquia and Chocóano Urabá the african palm production.

Minor territorial unit -El Canal



The El Canal settlement was formed 13 years ago, following the forced displacement suffered by 31 families living in the villages located at Kilometer 27 and La T, near the Pan-American Highway of the Municipality of Turbo.³²

Regarding this information, Luz Enith Torreglosa, a 51-year-old woman, one of the first inhabitants of the village, commented: "My father Julián Torreglosa bought it from Mr. José Benítez in 1986, back then there were only two houses, the one that my father bought and that of Mr. Esteban Chica, and it was two years later that we all came to El Canal".

The declarations on displacement were made to the Public Ministry (Personería) of the Municipalities of Turbo and Apartadó, individually by eight families that were included in the RUPD (Unified Registry of Displaced Population). Four families made

³¹ Ibid. p 458.

³² PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A .Op. cit. p.454.

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the declaration extemporaneously and were not included in the RUPD; there are 19 families that out of fear did not make the statement before the Public Ministry and therefore have not been considered as displaced.³³

This community is part of an extended family where two surnames predominate: Torreglosa and Hernández.

At the time of the displacement, they sought the support of a relative, Julián Torreglosa, who owned an estate of approximately 7.5 hectares, with title deed granted by the INCODER, who placed them in lots of 10 meters in front by 20 meters deep, selling them at the rate of \$ 400,000 each, so that they were paid by installments. These properties were sold through sales documents and all are safe and sound with the seller. The area occupied by lots and houses is 1.5 hectares in total³⁴.



5.3.2.8 Characterization of population groups

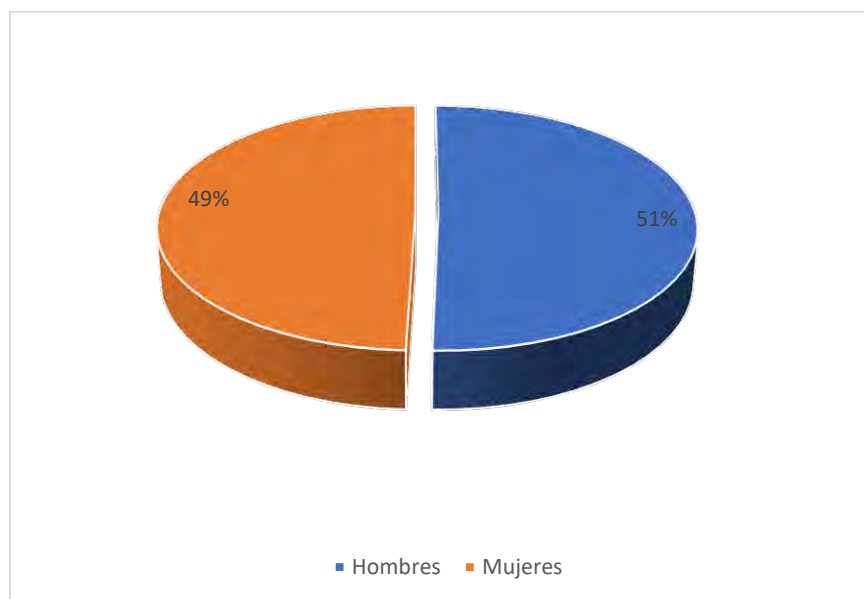
Minor territorial unit -Nueva Colonia

The current population of the township of Nueva Colonia, is made up of 17,472 inhabitants according to data provided by the SISBEN Office, of which 8,826 are men for a 49% and 8,626 are women for a 51%, finding a minimum range of difference of the distribution by gender. (See Figure No. 5.8).

³³ Ibid.

³⁴ Ibid.

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Men, Women

Figure No. 5.8 Characterization of population groups by sex. Minor territorial unit- Nueva Colonia.



Source: Aqua & Terra Consultores Asociados S.A.S., 2015

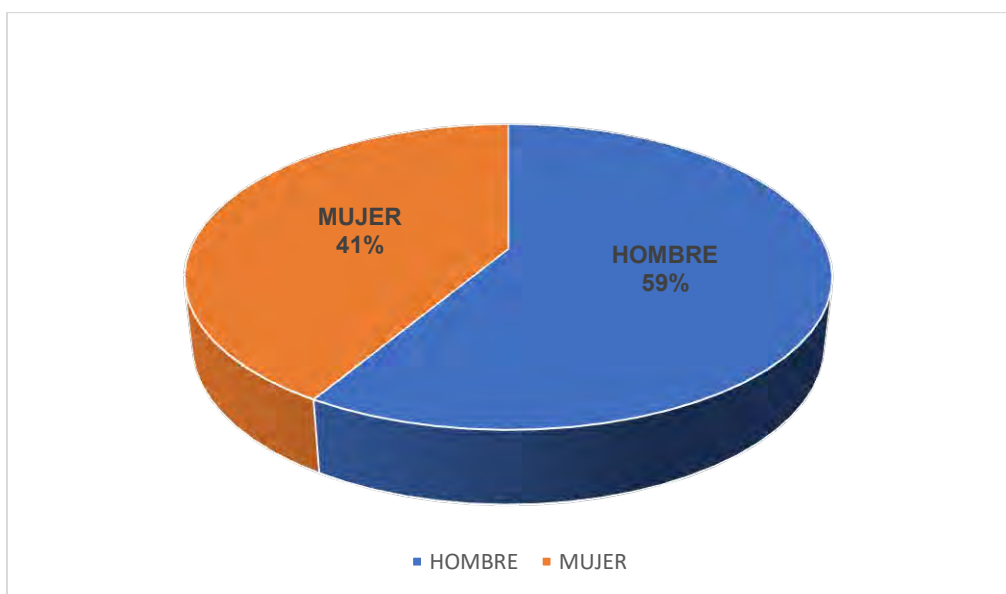
The Township is made up of fifteen neighborhoods, namely, 24 de Diciembre, San Diego, San Domingo, San José, Centro, Calle Larga, Balsilla, Caribe, San Joaquín, San Sebastián, 29 de Noviembre, Probán, Las Flores, Rabo Largo, and serves fifteen villages California, San Jorge, Honduras, Río Mar, La Esperanza, Nueva Unión, La Lorena, Calle Larga, La Teka, La Piña, Los Coquitos, La Vitrina, Puerto Chico, La Macanda, San Bernardo, el Recreo.³⁵

Minor territorial unit -El Canal

The El Canal Settlement is conformed by 157 people, of which 92 are men what corresponds to 59% and, 65 women equivalent to 41% remaining. It is important to point out that both the leadership of the family and community participation is assumed by the woman (Figure No. 5.9).

³⁵ Municipal Agreement 015 of July 20, 2000. Land Management Plan, Municipality of Turbo Physical-Spatial Diagnosis

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Men, Women

Figure No. 5.9 Characterization of population groups by sex. Minor territorial unit -El Canal



Source: Prepared by Aqua & Terra Consultores Asociados S.A.S. Fieldwork: June -2015

5.3.2.9 Demographic trends- Minor territorial units

Minor territorial unit of Nueva Colonia

In the township of Nueva Colonia, in recent years, the population has increased, due to the improvement of the conditions in its infrastructure and the proximity to the work sites, since most of them are dedicated to wages in the nearby farms or in the banana companies located in the sector.

In addition, the life expectancy of the population has improved, finding better care practices, by prevention policies and early health care, both for children and for pregnant and lactating mothers. If the previous approaches are considered and, in the absence of specific official information for the Nueva Colonia Township, it can be stated that the population growth in the populated center depends on the changes generated by the new government policies.

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Minor territorial unit -El Canal

According to the information obtained in the field in June 2015, the village consists of 36 families with 157 inhabitants, with an average of 5 people per family, who live in 28 homes, with an average of 6 people per household.

It should be noted that, 16 houses have only one room, overcrowding prevails, 9 houses have 2 rooms and only 2 of them are structured in 3 and 4 rooms (Table No. 5.6).

Table No. 5.6 Population structure by sex and age population of the El Canal Minor territorial unit



Age range	Women	Men	Total
0 to 4 years old	8	7	15
5 to 9 years old	9	17	26
10 to 14 years old	11	14	25
15 to 19 years old	4	15	19
20 to 24 years old	7	6	13
25 to 29 years old	3	5	8
30 to 34 years old	6	7	13
35 to 39 years old	7	5	12
40 to 44 years old	3	4	7
45 to 49 years old	3	2	5
50 to 54 years old	2	3	5
55 to 59 years old	2	1	3
60 to 64 years old	0	1	1
65 to 69 years old	0	2	2
70 to 74 years old	0	1	1
Over 74 years old	0	2	2
Total	65	92	157

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S. Fieldwork: June -2015

The data obtained show that, 9.6% of the population is within the age ranges of 0 to 4 years, corresponding to early childhood; 16.5% of the population is between 5 to 9 years old, being within this range the highest index of the total population; in the range of 10 to 14 years, is 15.09% of the population. Young people between the ages of 15 and 19 correspond to 12.1%.

The above shows that the El Canal settlement has a population that is mostly within the first five years (children, adolescents and youth).

In the same way, in the range between 20 to 59 years, 42.1% of the population is found, which in turn represents the economically active population of the area. Older adults are represented in only 3.8% of the total population.

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Photograph No.5.3 Hernández Montoya Family



Source: Aqua & Terra Consultores Asociados S.A.S., 2015 Photo taken of a couple of the El Canal. June 2015.

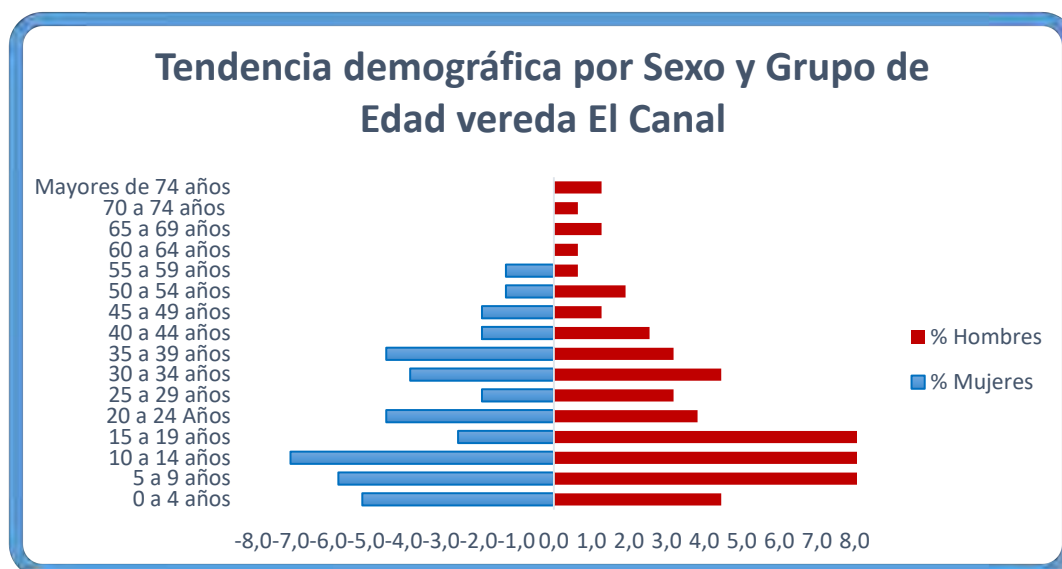
Facing The trend of recent years in the El Canal settlement it indicates important demographic changes, including little increase in the birth rate, and only 41% of the female population was found, of which only 10% were of fertile age. 59% of the population is male and with greater reach of adulthood, finding 6 men over 60 years.

Although the life expectancy of the community has improved, partly due to the decrease in infant mortality, this is due to the best care practices and public health policies in place.

Young people between the ages of 15 and 29 represent 25% of the total population, as can be seen in Figure No. 5.10 of population dynamics.

The following figure shows that the life expectancy of the men of El Canal is approximately 80 years and of women up to 59 years.

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Demographic trend by sex and age group of the El Canal village, older than 74, years(años), Men, Women

Figure No. 5.10 Population structure- Minor territorial unit -The Canal



Source: Aqua & Terra Consultores Asociados S.A.S.2015

5.3.2.10 Displacement -minor Territorial Units

Minor territorial unit -Nueva Colonia

This township has been in the last 15 years, both expeller and receiver of community, for reasons of forced displacement. It is important to note that the conflict over territoriality in the area has been going on for more than 20 years, due to the growth of the production of extensive cattle ranching, plantain and bananas initially, later in some regions of Antioquia and Urabá Chocoano the african palm production.

The strategic position of the Gulf of Urabá as a means of communicating the entry and exit of merchandise (legal and illegal), the trade union movements, the presence of illegal armed groups of both guerrillas (EPL, FARC, ELN, among others) and paramilitaries (AUC), have produced deep social conflicts that in turn have forced the population to be in constant mobility both within the region and out of it, as a form of protection.

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Minor territorial unit -El Canal

As mentioned above, the origin of the population in this minor territorial unit was due to a process of displacement of 2 families initially, the Torreglosa and the Hernández, who at present have remained on the village. The origin of the community is listed below (See Table No. 5.7), most of which is recognized as displaced.

Table No. 5.7 Origin of the families of the El Canal village

ORIGIN	NUMBER OF FAMILIES
Chigorodó	1
El Río village- Apartadó	2
Km 27	1
Mata Maíz	1
Ungía	1
Puerto Girón	2
San Pedro de Urabá	3
Tierra Alta Córdoba	1
Turbo	1
T Turbo Village	10
Bajirá	1
Churidó	1
Km 40 Carretera Panamericana	2
Córdoba	1
Nueva Colonia	6
Turbo	2
TOTAL	36

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S. Fieldwork: June -2015.



5.3.2.11 Unsatisfied Basic Needs Index (NBI) for the minor territorial units

Minor territorial unit of Nueva Colonia

The Index of the District's Unsatisfied Basic Needs, which corresponds to the index of the rural area of the municipality, DANE identifies it in 63.67%. This index is considered very high, since it implies that 63.67% of the population lacks a public or social service.

Minor territorial unit -El Canal

Nowadays, the El Canal settlement is considered poor, because the population does not have its basic needs covered: Precarious housing conditions are identified, with a high degree of overcrowding; compared to public services, there is no sewer service or aqueduct. Large families are identified in which only the head of the household provides what is necessary for the subsistence of the family, developing

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informal jobs or carrying out, to a greater extent, artisanal fishing activities for the food security of their family.

With regards to access to social services such as education, there is only one school for children.

In accordance with the above, it is concluded that their unsatisfied basic needs are of 90%.

5.3.3 Spatial component

Below is an overview of the quality and coverage of public and social services in the project's area of influence.

Initially, a general information of the municipality of Turbo as a major territorial unit is presented; subsequently, a general description of the coverage of public and social services is made in the Township Nueva Colonia and the El Canal settlement, identifying how their quality and coverage affect the quality of life of the populations settled in this area.

5.3.3.1 Major territorial unit: Municipality of Turbo



5.3.3.2 Public services Major territorial unit municipality of Turbo

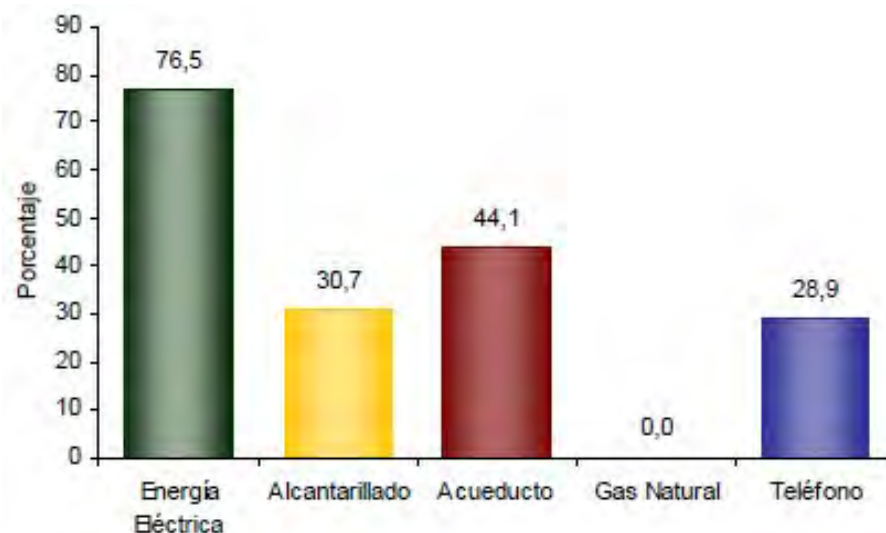
Public services are defined as the set of services through which the state guarantees the effectiveness of the principles, rights and constitutional duties to provide the citizen with quality of life.

Pursuant to article 1 of Law 142 of 1994 (which establishes the system of residential public services) the services of, aqueduct, sewerage, cleaning, electric power, distribution of fuel gas and basic public telephony are included within this group

This section presents the conditions in which the population of the major territorial unit formed by the municipality of Turbo lives, with respect to its surroundings, describing the quality and coverage of public services including the analysis of the housing unit and its endowments of aqueduct, sewerage, energy, waste management and telecommunications; It also describes the existing public transport.

In (Figure No. 5.11), access to home public services is shown by percentage of housing in the Municipality of Turbo, based on the information provided by the 2005 DANE Census; the public service that has the greatest coverage is the electric power, followed by the aqueduct, sewage, telephony.

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Percentage, Power, Sewage, Aqueduct, Natural Gas, Telephone

Figure No. 5.11 Coverage of public services Major Territorial Unit municipality of Turbo

Source: DANE. 2005 Census

Considering the information reported in the statistical yearbook of Antioquia, as described in Table No. 5.8, the public service with the greatest coverage is the energy service with 93.73%, followed by the aqueduct service with 59.63 %, sewage 32.87%, drinking water with 22.4%.



The information registers for the rural area a coverage in the service of drinking water of 0%. Compared to the telephony service coverage, a total coverage of 4.59% is presented. The gas network service is only provided in the urban area of the municipality and has a coverage of 43.68%.

Table No. 5.8 Coverage of Turbo's home utilities.

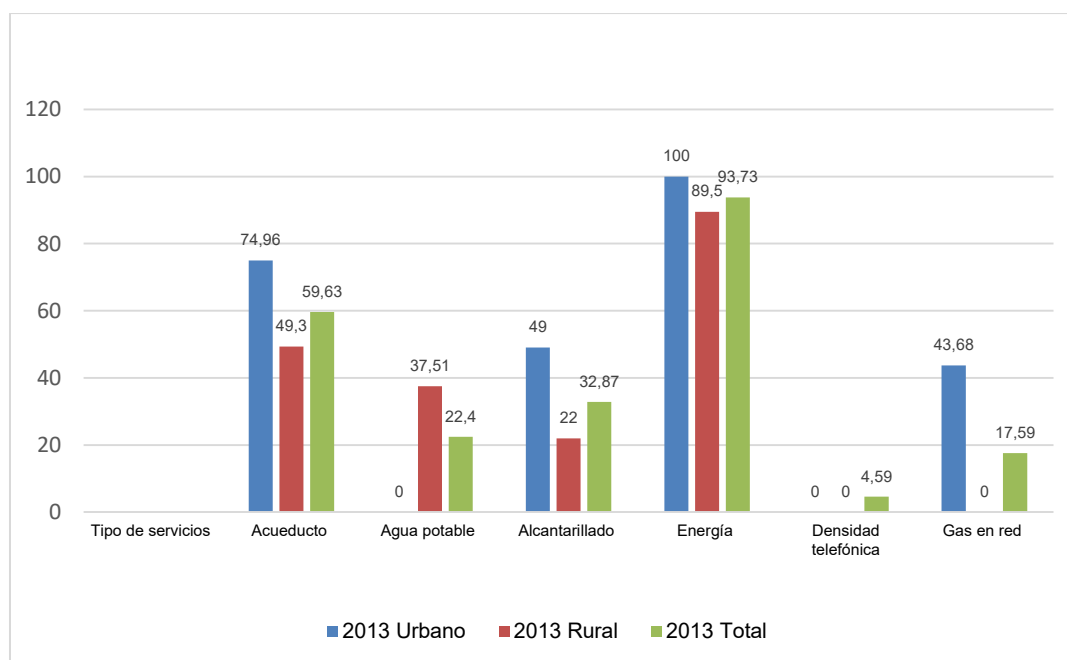
Type of services	2013		
	Urban	Rural	Total
Aqueduct	74,96	49,3	59,63
Drinking water	37,51	0	22,4
Sewage	49	22	32,87
Power	100	89,5	93,73
Telephone density	*	*	4,59
Gas in network	43,68	0	17,59

*No information

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S. With information of the statistical yearbook of Antioquia. Administrative Department of Planning. Directorate Indicator Systems.

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The coverage in public utilities for the year 2013, the following percentages are presented in Figure No. 5.12.





Type of services-Aqueduct- Drinking water-Sewage-Power- Telephone density- Gas in network
Figure No. 5.12 Coverage of residential public services major territorial unit municipality of Turbo

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S. With information of the statistical yearbook of Antioquia. Administrative Department of Planning. Directorate Indicator Systems.

As described in Table No. 5.3.8, the public service with the greatest coverage is the power service with 93.73%, followed by the aqueduct service with 59.63% sewage 32.87%, potable water with 22.4%. The available information registers a coverage in the rural water service of 0% for the rural area.

Compared to the telephony service coverage, a total coverage of 4.59% is presented. The network gas service is only provided in the urban area of the municipality and has coverage of 43.68%.

Next, the punctual information of the public services is presented, attending to the different consulted sources.

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Aqueduct and sewage

In the study "Diagnostic Evaluation and Formulation of the Plan of Action of the Water Supply System of Turbo-Antioquia" made by CONHIDRA in 1997, it is considered as weakness for the aqueduct system of the municipality the lack of awareness regarding the rational use of water in the population.

This lack of sense of belonging on the network leads them to resort to anti-technical actions to solve their need, causing deterioration to the network system such as broken pipes.

This causes losses and high costs not only to the company providing the service but also to the community. The poor service and high rates are largely due to waste of water, social indiscipline in the use of networks, the poor quality of materials used and the deficiency of consumption measurement systems.

Nowaday a "system loss control program" is implemented, focused on reversing the promotion, prevention and correction of use and consumption in the technical, economic and quality of life of the population and the company.



The municipality requires the replacement of pipelines in several areas of the urban area. In addition, it is necessary to expand coverage and prevent the expansion of human settlements in places that do not have infrastructure.

In its plan of action and water supply, the company CONHIDRA considered, the installation of equipment, community education, connection of new users, development of macro measurement and pyrometry programs, protection and control programs of the basin and studies and designs for the capture system³⁶.

The sewage system is a work in progress with which 55% of residential coverage is expected, equivalent to about 4,000 users. Currently, Aguas de Urabá is preparing a project to be delivered to the National Government and the department for allocation of resources. The project expects an ambitious plan of investments for 2015 in aqueduct and sewage system, whose emphasis in the municipality of Turbo will be to improve the networks with an investment of around 7,000 million pesos.

The company Aguas de Urabá, in the short and medium term looks for alternative sources for the service supply; Therefore, the construction of a third well that can guarantee the availability of water is planned, since the main source, which is the Turbo River, presents difficulties.

³⁶ Ibid. p 235

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Power

The electrical power supply system is part of the necessary conditions for the quality of life of the inhabitants. Below we will describe the current conditions of our territorial units under study.

In the municipality of Turbo, power covers 70.8% of homes at the municipal level, 88% at urban level and 59% at rural level. There are still many sidewalks without service. The interconnection is from Cerro Matoso and is distributed from the El Tres district's plant, with good quality and continuity, recognizing that in some sectors there are deficiencies due to the contraband of energy. 20,528 homes have this service.

Fuel gas

The service consists in the distribution of fuel gas, by pipeline or other means, from a large volume collection site or a central gas pipeline to the installation of a final consumer, including its connection, measurement and also, marketing activities, from the generation site to the one where it is connected to a secondary network (Art. 14 Law 142 of 1994 - Numeral 14.28)³⁷.

In the municipality of Turbo, the Empresas Públicas de Medellín -EPM-, within the framework of the proposal of Urabá Sostenible, connect the natural gas service to the inhabitants of Turbo, belonging mostly to 1, 2 and 3 strata.



EPM's investments in the area exceed \$ 27.000 million, not including close to \$ 64.000 million generated for the financing of connections and internal networks.

The works contemplate the extension of 472 kilometers of external and internal networks, five decompression stations for the Urabá municipalities (one for each municipality), civil and complementary works in other infrastructure fronts.

The incursion into Urabá is part of the Gas without Borders program of EPM, which seeks to expand the service in areas other than Valle de Aburrá (East, North, west and southeast of Antioquia), under the modality of Compressed Natural Gas (GNC). This is an economic option, clean and safe to meet the energy needs of the population and substitute many of the polluting fuels that communities like Urabá have been using for years.

Families of strata 1 and 2 can enjoy the service with a subsidy on consumption of up to 60% in the case of stratum 1 and up to 50% for stratum 2.

³⁷ CORPORACIÓN PROMOTORA CANAL EL VARADERO PROCANAL. Óp. Cit. Page. 13

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Collection, transport and disposal of solid waste

The company FUTURASEO S.A provides garbage collection service in the municipality of Turbo. It has available collection vehicles of the latest technology, with its respective crew consisting of driver and operators who perform the collection.



It also has motorcycles for hard-to-access roads, with the aim of guaranteeing door-to-door collection and avoiding contamination sources. It also has a corporate jingle, which has allowed, through awareness to the community, identify the collection routes (See Photograph No. 5.9).



Photograph No. 5.4 Garbage collection system. Municipality of Turbo.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015 Taken from <http://www.futuraseo.com/index.php/municipios/turbo>

The service's frequency of collection is twice a week, by sectors, as shown in the following Figure No. 5.13.

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SISTEMA DE RECOLECCIÓN TURBO	
FRECUCIA DE DOS VECES POR SEMANA (Lunes y Jueves)	
BARRIO/SECTOR (6:00 am a 2:00 pm) Jesús Mora, Baltazar Centro, Plaza de Mercado Doble Calzada, Calle 104 Policía Nacional, Hospital, Alcaldía	BARRIO/SECTOR (2:00 pm a 10:00 pm) Sector Oriental de Currulao Sector Occidental de Currulao Vía principal hasta El Tres Palmitas, San José, Coldsas.
FRECUCIA DE DOS VECES POR SEMANA (Martes y Viernes)	
BARRIO/SECTOR (6:00 am a 2:00 pm) Nueva Colonia Rio Grande, Centro, Plaza de Mercado Vía 104, Doble Calzada Policía Nacional, Hospital, Alcaldía Nueva Antioquia	BARRIO/SECTOR (2:00 pm a 10:00 pm) Huber Quintero, Manizales, Julia Orozco Floresta, Instituto, Gonzalo Mejía, Monterrey I, La Lucila El Bosque, Invasión, Ciudadefa B. Las Delicias, B. Los Profesores
FRECUCIA DE DOS VECES POR SEMANA (Miércoles y Sábado)	
BARRIO/SECTOR (6:00 am a 2:00 pm) Tie, Cirilo, Punta de Piedra, La Martina Cope, Camerún, Las Garzas, El Tres Casa Nova, Centro, Plaza de Mercado Hospital, Alcaldía, C. Pto Cesar (C/15 días)	BARRIO/SECTOR (2:00 pm a 10:00 pm) San Martín, Brisas del Mar Obrero, Punta de las Vacas Santa Fe la Playa, Los Pescadores
DOMINGOS	
HORARIO	6:00 AM-2:00 PM
SECTOR	Centro, 104, Doble Calzada y Sector comercial

Figure No. 5.13 Waste collection in Turbo

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015 Taken from <http://www.futuraseo.com/index.php/municipios/turbo>

In Table No. 5.9, the management given to solid waste can be observed, according to the figures provided by the DANE in the 2005 census.

Table No. 5.9 Waste disposal in the homes of Turbo.



It is collected by the cleaning services	Buries it	Burns it	That throw it in a yard, batch, ditch	That throw it in a river, spout, ravine, lagoon	That eliminate it in another way
16.967	724	5.402	1.795	544	374

Source: DANE. 2005 Census.

Internet and Telephony

The devices that facilitate the human need to communicate have become a tool that reduces the time and resources used for this purpose.

The provision of fixed telephony and internet service has lower rates; This situation is the result of the massification of mobile telephony and more and more access to the internet service. However, it remains a great challenge to improve coverage and

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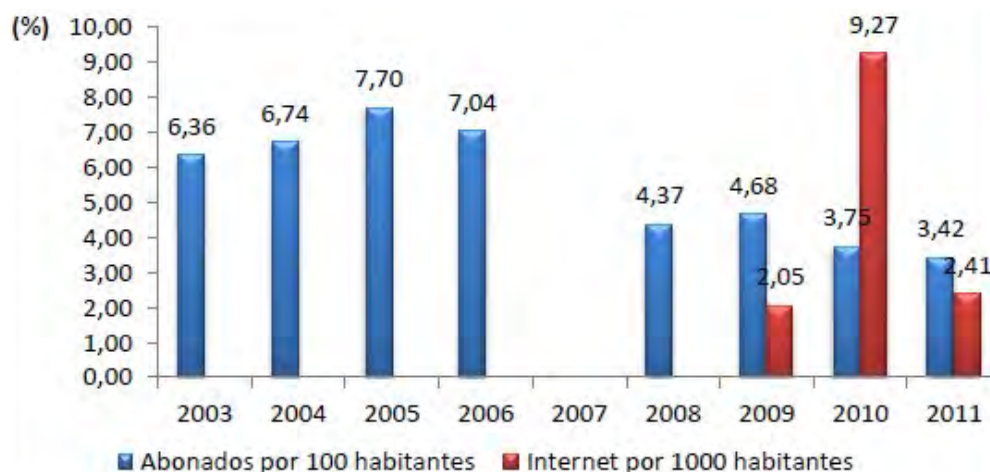
access to information and telecommunications technologies, especially for the population with fewer resources³⁸.

In Figure No. 5.14, the telephone density is presented in terms of subscribers per 100 inhabitants and the Internet connection and broadband connection per 1000 inhabitants.

The telephone density reached the highest coverage in 2005 with a value of 7.70%; since then, it has been decreasing until reaching a value of 3.42% in 2011.

In relation to Internet connectivity, in the municipality it went from 2.5% in 2009 to 9.27% in 2010, and then fell for 2011 to 2.41% (Administrative Department of Planning (DAP) - Gobernación de Antioquia, 2012).

The decrease in telephony density is probably related to the expansion in coverage of mobile telephony, where it is not difficult to see, even in rural areas, the presence of antennas of some mobile telephony operators.³⁹





Subscriptions per 100 inhabitants, Internet per 1000 inhabitants

Figura No. 5.14 Densidad telefónica en Turbo 2003-2011

Source: Administrative Department of Planning. Government of Antioquia

³⁸ Ibid., p. 64

³⁹ Administrative Department of Planning. Government of Antioquia

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5.3.3.3 Social services Major territorial unit-municipality of Turbo

Social services are those services related to the provision of health services, education, housing, culture and recreation. These services are indicative of the quality of life of the inhabitants of the populations being studied. Its measurement is given in terms of accessibility, equity and efficiency in the service (See Photograph No. 5.18).



Photograph No. 5.5 Children of the El Canal settlement.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Health Infrastructure



The welfare of the population is related to a large number of variables, among which are public health policies and their proper implementation.

To analyze this element, we investigated the conditions of coverage, the trend of morbidity, actions around epidemiological surveillance and risk factors, as well as the causes of mortality and the state of the equipment available for this service.

The above with the aim of having clarity of the identification and location of health services in the Municipality of Turbo.

- **Coverage**

The members of the General System of Health Social Security -SGSSS- are classified between the Subsidized Regime and the Contributory Regime.

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The first is understood as the system that provides the health service, with resources of the Nation, to the poorest and most vulnerable population, which is classified through the SISBEN, system of identification and classification of potential beneficiaries, a tool that by means of a survey makes a classification of people according to the physical characteristics of the houses where they live and their demographic and economic characteristics.

For its part, the contributory regime is called the classification in the Social Security System of individuals, and their families, who can pay for health services and who are linked, either as employees or as independent workers.

Based on the information analyzed in the Rural and Urban Productive Profile of the Municipality of Turbo report conducted by the Ministry of Labor⁴⁰, referring to the population affiliated with the social security system, the Single Base of Affiliates (BDUA), which comes from the Ministry of Health is used, which contains information on affiliates fully identified to the different regimes of the Social Security Health System (subsidized, contributory and special regimes).



Considering the information reported in the aforementioned report, in 2011, there were a total of 123,964 affiliates, of which 72.4% belonged to the subsidized regime, 26.6% to the contributory regime and 1.1% to the exceptions regime⁴¹.

On the other hand, in 2012 the total number of affiliates was 122,372 members, of which the subsidized regime contributed 72.39%, while the contributory regime contributed 26.52%.

On the other hand, the exception regime contributes only 1.1%. Compared to 2011, we can see that the number of total taxpayers decreased by 1.3%, in which the participation of both the subsidized regime and the contributory regime decreased slightly for 2012, as shown in Figure No. 5.15.

⁴⁰ RURAL AND URBAN PRODUCTIVE PROFILE OF THE MUNICIPALITY OF TURBO. Ministry of Labor 2013 [online] <http://www.mintrabajo.gov.co/component/docman/doc>. [Retrieved on September 13, 2015]

⁴¹ The members of the military forces, the National Police, the civilians of the Ministry of Defense, the public servants, the pensioners of Ecopetrol, the affiliates to the National Fund of Social Benefits of the Magisterium and the Public Servants of Higher Education belong to this regime

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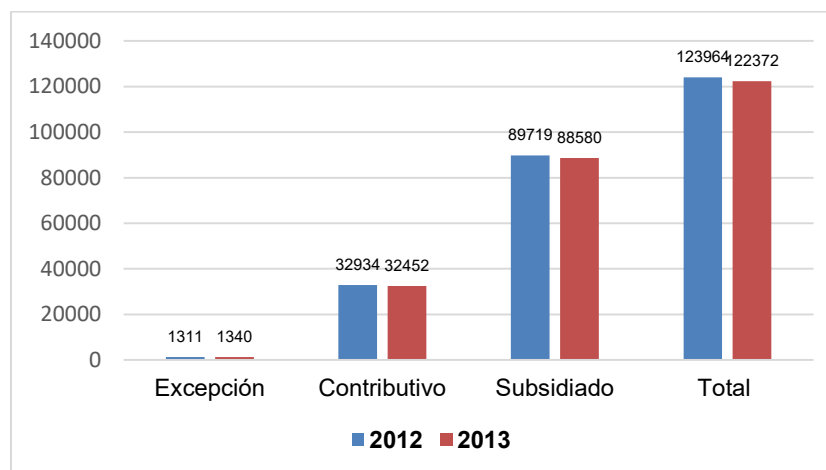


Figure No. 5.15 Number of affiliates according to health regime, 2012 -2013 in the major territorial unit of Turbo

Source: Rural and Urban Productive Profile of the Municipality of Turbo conducted by the Ministry of Labor

Consulting other secondary sources, such as the Antioquia statistical yearbook, in the health component, the database records the following information regarding health coverage for the years 2013 and 2014 (See Table No. 5.10).



Table No. 5.10 Affiliated to social security in Turbo.

Regime type	Affiliated to the social security health system			
	2013		2014	
	Affiliated population	Coverage %	Affiliated population	Coverage %
Subsidized	91.339	60,42	99.950	64.41
Contributory	31.527	20,86	35.194	22.68
Total	122.886	81,28	135.144	87.09

Source: Statistical Yearbook of Antioquia. Government of Antioquia. Secretary of Health and Social Protection of Antioquia 2014.

• *Equipment*

The municipality of Turbo has the E.S.E Francisco Valderrama Hospital; it is the only public IPS of medium complexity in the region. It also has four health centers (one in the urban area and the others in three townships) of which one is in Nueva Colonia. In the rural area, 18 health posts that are currently in operation are identified (Photograph No. 5.19). The provision of beds per thousand inhabitants is 0.5 and

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the disposition of medical personnel per thousand inhabitants is 0.2, the lowest figures of the central área municipalities.

The dental staff is taken over every four thousand inhabitants, which results in a participation of 0.2, a figure equivalent to that of Apartadó and that of the region.



Photograph No. 5.6 Turbo Municipality Hospital.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Consequently, in Table No. 5.11, public and private health centers are listed, as well as establishments that provide services associated with health:

Table No. 5.11 Health centers identified in the municipality of Turbo.

Health center	Address
Empresa Social Del Estado Hospital Francisco Valderrama	km 1 Turbo exit - Apartadó
Don Bosco Health center	Principal Park
Félix Londoño Health center	Barrio Nueva Colonia
Rio Grande Health post	Township Río grande
Blanquiceth Health post	Township Blanquiceth
El Tres Health post	Township El Tres
alto de mulatos Health post	Township Alto De Mulatos
San Vicente del Congo Health post	Township San Vicente De Congo
San José de mulatos Health post	Township San José De Mulatos
Dos Health post	Township El Dos
Piedrecitas Health post	Township Piedrecitas
Tie Health post	Township Tie
Pueblo Bello Health post	Township Pueblo Bello
Punta de Piedra health post	Township Punta De Piedra
Tablitas Clinic	km 1 Turbo exit - Apartado
SOMEBA s a Central clinic	carrera 14 n° 99a-65



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Health center	Address
Clínica central y Cía. Ltda.	carrera 14 n° 99a-65
Clinica Central medical center	calle 104 n° 15-53
Nuevos horizontes Foundation	CL 101 # 15-14
Nuevos horizontes Foundation- Turbo Headquarters	CL 101 # 15-14
Turbo preventive medical foundation	CL 14 B # 101 - 86
IPS FAMISALUD	KR 50 # 49B-64
IPS Famisalud Nueva Colonia	CL 29 # 31-33
IPS Turbo	CL 101 # 14-55
IPS Currulao	KR 54 # 48-33
Salud Darién IPS SA Currulao Headquarters	calle 51 # 49 - 04
Salud Darién IPS SA. Nueva Colonia Headquarters	CL 25 #26A - 16
Salud Darién IPS SA. Turbo Headquarters	KR 15 #100 - 01
UNLAB Turbo	KR 14 B # 100 37
Promedan IPS Turbo	KR 14 # 98 - 22
Diagnóstico IPS Turbo	CL 101 # 14-55
Clinisonrisas Eu	CL 100 14B-71 PI 2 OF 202
Centro de reconocimiento del Urabá Ltda.	CL 103 12-131 Barrio Buenos Aires
Integral services UNISER E. U.	CL 100 # 15 101
Tu salud equilibrada	CL 100 # 15 101
Prismaluz Optics	CL 102 # 13-31
Corporation for immediate emergencies and home health services "paramedics - EISALUD	CL 101 # 14-54 PI 2 Ed. Valderrama
Paramedic Corporation EISALUD	CL 101 # 14-54 PI 2 Ed. Valderrama
ORTHOHAND S.A.S. Nueva Colonia	KR 29 A # 23 - 17
ORTHOHAND S.A.S. Currulao	KR 50 # 52-32
Turbo physiotherapy clinics Rehabilitamos	KR 14 #98-37
Unión vida "FUNVIDA" Foundation	CL 104 KR 19 # 18A-40
IPS Unión Vida Turbo "FUNVIDA" Foundation	CL 104 KR 19 # 18 A -40

Source: Turbo hospitals and clinics [Online] Medical directory [Quoted on August 3, 2015] available at <http://centrosmedicosyhospitales.com/colombia/Antioquia/turbo>.

• *Mortality and morbidity*

The most common diseases, according to causes of discharge and outpatient consultation, are: bronchopneumonia, asthma, intestinal infections, skin diseases, among others.

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Mental health has been affected by the degree of violence generated in the region, the forced displacement, the distress within families, the poverty conditions of the population, the lack of programs and spaces for recreation and use of time free.⁴²

In Table No. 5.12, the main causes of death reported for 2012 and 2013 are presented. In response to the information reported by the Sectional Secretary of Health and Social Protection of Antioquia, the main causes of death that are presented are: cardiovascular diseases; deaths due to violent causes, cerebrovascular diseases, traffic accidents, diabetes, chronic respiratory diseases, pneumonias, hypertensive diseases, carcinogenic diseases, among others. In total, there were 453 deaths for the year 2012. For the year 2013 there was an increase in registered deaths, going from 453 in 2012 to 492 in 2013.⁴³

Table No. 5.12 Ten first causes of death in the municipality of Turbo.



Causes	2012		2013	
	No. of cases	Participation %	No. of cases	Participation %
Ischemic diseases of the heart	93	20,53	91	18,50
Assaults (homicides) and sequels	49	10,82	51	10,37
Cerebrovascular diseases	35	7,73	32	6,50
Motor transport accidents and sequels	23	5,08	22	4,47
Mellitus diabetes	21	4,64	13	2,64
Chronic diseases of the lower respiratory tract	14	3,09	10	2,03
Pneumonia	12	2,65	11	2,24
Hypertensive diseases	12	2,65	12	2,44
Malignant tumor of the trachea and other	11	2,43		
Drowning and accidental submersion	9	1,99		
Other causes	174	38,41	216	43,90
Signs, symptoms and ill-defined conditions			12	2,44
Total	453	100,00	492	100,00

Source: Statistical Yearbook of Antioquia. Government of Antioquia. Secretary of Health and Social Protection of Antioquia 2014.

The municipality of Turbo presented high homicide rates in relation to the department of Antioquia. Although against the historical record reported by the Institute of Legal Medicine, the phenomenon has decreased since 2002, it still has a high rate of violent deaths compared to reports at the departmental level.

⁴² : STATISTICAL YEARBOOK OF ANTIOQUIA. GOVERNMENT OF ANTIOQUIA. Secretary of Health and Social Protection of Antioquia. 2014.

⁴³ : STATISTICAL YEARBOOK OF ANTIOQUIA. GOVERNMENT OF ANTIOQUIA. Secretary of Health and Social Protection of Antioquia. 2014.

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It can be observed, according to statistics for violent deaths in 2013 and 2014 that, although they have decreased, the number of victims is still high and, it should be noted that the high number is due to traffic accidents. (See Table No. 5.13).

Table No. 5.13 Violent deaths by occurrence of the event in the municipality of Turbo

Violent deaths due to the occurrence of the event				
Concepts	2013		2014	
Homicides	43	28,45	36	23,20
Suicides	4	2,65	0	0,00
Traffic accidents	53	35,06	47	30,29
Total	100	66,15	83	53,49



Source: Statistical yearbook of Antioquia. Government of Antioquia. Secretary of Health and Social Protection of Antioquia 2014.

Of other health indicators that are presented in the following report, the high adolescent pregnancy rate as well as the maternal and infant mortality presented in the municipality are highlighted. (See Table No. 5.14)

Table No. 5.14 Health indicators in the municipality of Turbo.

Other health indicators	2012		2013	
	Cases	Rate	Cases	Rate
Infant Mortality Rate per thousand live births	37	12,39	30	11,16
Maternal Mortality Rate per hundred thousand live births	3	100,47	1	37,20
Mortality Rate for Cervical Cancer for everyone hundred thousand women	7	9,63	2	2,68
Rate of Mortality from Prostate Cancer per hundred thousand men	4	5,36	8	10,45
Rate of Mortality Associated with HIV / AIDS for everyone hundred thousand inhabitants	7	4,75	4	2,65
Undernutrition Mortality Rate in Children under 5 years old for everyone hundred thousand children under 5 years old	0	0,00	0	0,00
Vaccination coverage with Triple Viral in children under one year (%)	3.113	91,94	3.151	93,06
Incidence rate of Tosferina per hundred thousand inhabitants	6	4,07	26	17,20
Parotiditis incidence rate per hundred thousand inhabitants	4	2,72	3	1,98
Incidence rate of Congenital Syphilis per hundred thousand live births	8	2,75	8	2,98
Teenage Pregnancy Rate of 10 - 14 years old for every thousand women	72	7,89	72	7,87
Teenage Pregnancy Rate of 15 - 19 years old for every thousand women	941	117,27	853	101,80

Source: Statistical Yearbook of Antioquia. Government of Antioquia. Secretary of Health and Social Protection of Antioquia 2014

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Education Infrastructure

Education is one of the fundamental rights for which the State must ensure, ensuring its equity, quality and effectiveness.

In this section will be analyzed, variables such as educational level of the population, school population, illiteracy and equipment for the provision of education service.

In response to the information reported in the municipal development plan 2012-2015 of the municipality of Turbo, it serves 48,528 students in 53 educational institutions, of which 38 are official and 15 are unofficial.

92.6% constitutes the official enrollment and 7.4% is distributed in the unofficial enrollment and the Special Elective Cycles that are attended with methodologies aimed at the adult population.

92.19% of the school population of Turbo belongs to stratum 1, 6% to stratum 2, 1% is in stratum 0 and 0.72% is distributed in strata 3, 4, 5 and 6.



Added to this characteristic of the socio-economic stratification of Turbo students is the condition of Turbo as the first municipality in Antioquia to expel people displaced: 52,214 in 2009, due to the armed conflict that the Urabá region has experienced since the 80s (Taken from the Statistical Bulletin of the Antioquia General Attorney's Office, 2011).

This situation becomes one of the conditioning factors of school coexistence and the development of teaching and learning processes that are carried out in the Turbo institutions and educational centers.⁴⁴

The school population is attended by 1,356 classroom teachers, of whom 1,023 are appointed, 29 in probation, 21 temporary teachers, 283 in permanent vacancy and 109 teachers, for a total of 1,465 teachers and school directors, of which 48% have carried out specialization studies. Approximately 15 teachers advance master's studies with individual efforts.⁴⁵

⁴⁴ Turbo municipal development plan p. 62

⁴⁵ Ibidem., p 63

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The state of access, permanence and quality of public education in Turbo is expressed in aspects such as ⁴⁶:

- Low access to education at the levels: initial, preschool, basic, and media.
- High student desertion, which is located at 6%.
- High illiteracy rate at 16.9%.
- Low level in the development of the skills of children, youth and adults enrolled in the official education system, according to the results of the State tests.
- Absence of plans for continuous training for teaching staff.
- Insufficient infrastructure and resources for pedagogical innovation and inclusive educational practices.
- Little appreciation of the human capital and the cultural identity of the municipality.
- Incipient process of modernization of the educational sector and precarious local educational policies.

The Ministry of Education is executing the Performance Plan as a preventive measure against risk events in the management of resources of the General Participations System in the Education sector, identified by the Ministries of Finance and Education, which implies the execution of improvement actions in five administrative categories: Information Reports, Teaching and Administrative Plant, Educational Quality, and Financial and Legal Gratuity.

The gross and net schooling rate reported by the Statistical Yearbook of Antioquia is shown in Table No. 5.15.

⁴⁶ Ibidem., p 64



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Table No. 5.15 Schooling and dropout rate year 2013 Major territorial unit of the Municipality of Turbo.

Schooling and dropout rate year 2013										
Education level	Students enrolled	Gross schooling rate%			Net rate of schooling%			Desertion%		
Transition	4.384	113,59	135,17	126,60	111,12	130,81	122,99	0,70	0,60	0,60
Elementary	22.084	101,83	142,54	126,37	79,33	107,14	96,09	1,99	0,60	1,00
High school	12.807	80,23	93,64	88,31	65,56	71,21	68,96	1,92	1,91	1,90
Medium	3.833	60,25	52,14	55,37	36,80	14,52	23,37	0,50	1,00	0,80

Source: Statistical Yearbook of Antioquia with information on certified Municipalities and Ministry of Education for Culture of Antioquia 2013.

In terms of educational quality, these are the results of the knowledge tests for the years 2012, 2013 and 2014. (See Table No. 5.16).

Table No. 5.16 Saber Average Scores Tests -Turbo



Saber Average Score Tests 11°				
Subjects	2012	2013	Subjects	2014
Language	43,25	43,97	Critical reading	45,18
Mathematics	41,95	41,16	Mathematics	45,49
Social Sciences	40,72	40,78	Natural Sciences	43,97
Biology	41,48	41,21	Social civics	44,88
Chemistry	42,64	41,55	English	45,16
Physical	41,69	40,80		
Philosophy	37,56	36,99		
English	38,55	40,57		

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015 with information from the Statistical Yearbook of Antioquia with information from certified Municipalities and the Ministry of Education for Culture of Antioquia

- *Institutions of higher education*

A description of the programs offered in the municipality of Turbo, evidence that there is a related offer or focused on the economic vocation of the territory.

In the municipality there is the offer of mainly five institutions of higher education: The University of Antioquia (section Urabá-Turbo) and SENA of public character, the University Minuto de Dios, a private college, and two institutions that base their modality of study in distance or virtual education such as the Corporacion Unificada

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Nacional de Educación Superior (CUN) and the Universidad Nacional Abierta y a Distancia (UNAD).

Turbo has the SENA Agroindustrial, Livestock and Tourism Technology Complex. Likewise, the University of Antioquia with headquarters in the municipality, which offers a wide variety of programs.

The programs offered, both by SENA and the University of Antioquia, bear a certain relationship with the productive vocations of the municipality, where the SENA has a more specific offer for the agricultural part and the University of Antioquia has a wide range of programs, among which those that belong to the sciences of the sea stand out.

Of the total number of programs that have been dictated in this area, only 19 are active, which point not only to economic activities, but also to complementary and integral training, such as administration, training for the health sector, for the environmental and natural component, typical of the territory's biodiversity, such as the ecology of coastal areas is.

Faced with the relevance of the programs offered by the University of Antioquia, in relation to the productive vocation of the municipality, the coordinator of the program of Marine Sciences of the Turbo Headquarters, explains that these careers are precisely adapted to the need of the territory, where they are totally relevant with the geographical and natural conditions that the municipality has.



Within the Sciences of the Sea careers, the director mentions that to date, the Oceanographic Engineering, Oceanography and Ecology of Coastal Zones careers have a total of 200 students⁴⁷.

- *Job training*

Regarding job training, in general, there is a wide range of training programs, which are directed to the different activities that take place in the Municipality. Programs related to finance and administration issues coexist with those aimed at the agricultural and production sectors. It can be considered that the offer of training programs corresponds to the wide extension and population of the municipality⁴⁸.

⁴⁷ Profile p.46

⁴⁸ Turbo municipal development plan p. 72

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The commitment of the NEO Urabá program, which is operated by Comfenalco Antioquia, is to train some 13,000 young people in areas that the labor market demands of the region in the next three years.

The goal is that 40% of the population that completes the training will be employed for a minimum of one continuous year. The NEO Alliance is made up of the Government of Antioquia, through the Secretariat of Productivity, the Ministry of Education, the Comprehensive Project for the development of Urabá and young Antioquia, Corona Foundation, Microenterprises of Colombia, the Department for Social Prosperity, Comfama, Fundaunibán, University of Antioquia, Corbanacol, Augura, Colombian Institute of Family Welfare, SENA Urabá and the Chamber of Commerce of Urabá.

Within the Municipal Development Plan, in its third component, Education with quality for all, is identified:

- Program 1. Expansion of Educational Coverage
- Program 2. Educational Quality
- Program 3. Human talent and ethno-education
- Program 4. Efficiency and modernization of the education sector
- Recreational and sports infrastructure of the Municipality of Turbo



Recreation Infrastructure

The municipality has the Municipal Institute of Sports and Recreation. IMDEPORTES, whose purpose is to guarantee the social right of the inhabitants of the municipality of Turbo to meet their biopsychosocial development needs through the practice of sports, physical education.

The recreation and use of free time through the administration of sports development programs and projects, executed by qualified human resources, with the available material resources and the adequate maintenance and conservation of appropriate sports and recreational scenarios, is a foundation for tolerance, understanding, the integration of the municipal community and the permanent presence of peace.⁴⁹

Turbo was for many years, the historical reference in sports in Urabá and Antioquia, not only for its results at regional and national level, but also for its organization and

⁴⁹. COLOMBIA. Turbo City Hall. General information. Website: <http://www.turbo-antioquia.gov.co>. Taken on July 28, 2015.

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structure constituted as a model to be followed by the other municipalities of the subregion.⁵⁰

Despite the above, it is necessary to point out that the municipality has been, gradually, losing its sport leadership and its leading role in the regional context, which has been evidenced in the loss in the hegemony in different regional events, lesser number of athletes in the departmental teams.

But not only the loss of leadership in competitive sports concerns, but also that reality shows that coverage is insufficient and there is a low level of development of sports, recreation, physical education and physical activity in the municipality.⁵¹

In the Development Plan, the following information is cited as shown in Figure No.5.16.

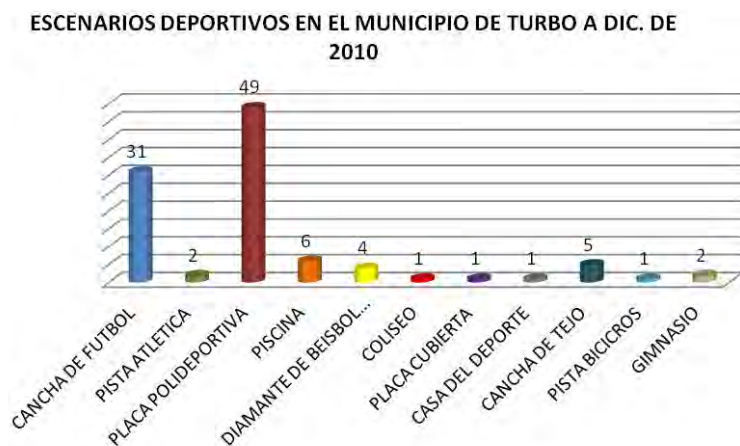


Figure No.5.16 Turbo Sports Scenarios as of Dec 2010



Soccer field, Athletic track, sports center, pool, baseball diamond, coliseum, indoor plaque, sport plaza, tejo court, bicicross track, gym

Source: Antioquia Departmental Sports Institute -INDEPORTES, Physical Infrastructure Coordination (not including Medellín municipality); Institute of Sports and Recreation -INDER- Municipality of Medellín. 2010

It was observed that the community enjoys the beaches and the sea in the urban area, however, at present it could be observed that they are closed for public use, due to the dangerousness of them (See Photograph No. 5.20).

⁵⁰ 2012 - 2015 Development Plan. Rethinking the path to progress. Turbo City Hall Page.158.

⁵¹ Ibid.

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Photograph No. 5.7 Beaches in the Municipality of Turbo.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

Housing

Housing is the structuring component of urban development, which also fulfills a social and economic development function of cities.



These connotations derive from the fact that housing must be conceived in its entirety, seeking the balance between the physical space, the natural environment and the sociocultural development.

In the current scenario of public policies oriented towards the habitat, the Municipal System of Housing of Social Interest should be rethought and recreated in a Housing System that deals with the VIS as a strategic field of action, but always with a broad coverage of urban-rural systems, of cities, structured and structured territory, with a vision of processes that add value to public management and development.⁵²

- *housing typology*

According to information from the DANE bulletin, the total number of existing homes is of 25,808, of which 84.4% of the houses in the Municipality of Turbo are made up of houses, 5.7% are apartments and 9.9% are rooms or another type of housing.

⁵² 2012 - 2015 Development Plan. Rethinking the path to progress. Turbo City Hall. Page.151.

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There are 25,807 homes in the municipality. It should be noted that there are 330 indigenous houses built in the form of stilt houses, in the areas where the different indigenous groups congregate, generally the jungle zones⁵³ (See Table No. 5.17).

Table No. 5.17 Housing typology in the major territorial unit of the Municipality of Turbo

House	Indigenous house	Apartment	Room type	Another type of housing
21.680	330	1.475	2.253	70

Source: DANE. Censo 2005.

The number of households with qualitative deficit amounts to approximately 14,000, that is, 51.78% of households are in qualitative deficit, of which 42.84% have their homes with inadequate materials; 81.79% of the dwellings do not have a sewerage connection, 57.37% have no connection to the aqueduct, 46.23% do not have the garbage collection service and 26% do not have electricity service.⁵⁴

The housing problem in Turbo is not limited to the deficit in housing units or in the quality of these units; it is in the absence of a long-term public Housing and Habitat Policy of the municipal order, built on consensus, and that accounts for the multiple realities in the housing and Urban Development problems of the Municipality.⁵⁵

The inefficiency in the application of the regulation by municipal administrations has allowed the continuous location of settlements in high risk areas, generating that at present it is estimated that there are approximately 2,000 homes settled in high risk areas, homes without title, and a disjointed and disorganized urban development, where housing does not have the minimum public space nor the equipment designed for the enjoyment of the inhabitants.⁵⁶

Transportation Infrastructure

In this section, the transport infrastructure existing in the municipality is described in relation to the road network consisting of the following routes: Primary, secondary and tertiary, and reference is made to the fluvial and aerial transport of the municipality of Turbo.

The municipality of Turbo communicates with terrestrial routes with:



- a) The road Medellín – San Jerónimo – Antioquia – Cañas Gordas – Uramita – Dabeiba – Mutatá – Chigorodó – Carepa – Apartadó – Turbo: 375 km.

⁵³ PUERTO BAHÍA COLOMBIA DE URABA S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 470.

⁵⁴ ALCALDÍA DE TURBO 2012 - 2015 Development Plan. Rethinking the path to progress. Page.151.

⁵⁵ Ibid.

⁵⁶ ALCALDÍA DE TURBO, Op cit. p.152.

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b) The road Medellín – Caucaasia – Valencia – San Pedro de Urabá – Turbo.

c) The road Medellín - Caucaasia - Montería - Arbolete - Necoclí - Turbo.

The intermunicipal transport is frequent having several companies that provide this service.

- *Air*: It has the service of Gonzalo Mejía Airport and Los Cedros de Apartadó Airport. The latter is actually located in the municipality of Carepa but serves the entire region.
- *Fluvial*: The population of the Bajo Atrato, both Chocoano and Antioquian, make great use of the fluvial communication routes, among which the transport Quibdó - Vigía del Fuerte - Murindó - Río Sucio - Turbo are noted

The municipality of Turbo has a road network that reaches 355 km, of which 12% have their road surface paved and the remaining 88% is located on dirt roads (Municipality of Turbo, 2012a).

With regards to the current distribution of roads, the municipality has 153 km of primary network, representing 43%, 67 km of secondary network, representing 19% and 135 km of tertiary network, representing 38 % of the total road network of the municipality⁵⁷ (See Table No. 5.18).



Table No. 5.18 Road Network of the Municipality of Turbo.

Roads	Kms.
Primary	153
Secondary	67
Tertiary	135

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015 with information from the Ministry of Labor, Productive Profile of Turbo.

When measuring the inhabitant's quality of life, it is necessary to analyze the means used for their transport or their goods. The public transport service and its structure depends on many variables, among them, the demand for the service, the existing routes both in terms of quality and coverage, the rates and times of service provision and the degree of development of the study area.

⁵⁷ MINISTRY OF LABOR, Op. cit., p. 59.

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The municipality of Turbo has a road network that reaches 355 km, of which 12% have their surface road paved and the remaining 88% is gravel road.⁵⁸

In the municipality there are minibuses and taxis that provide their services especially on the route of Apartadó - Turbo and within the urban area the inhabitants use their bikes, finding a high number of them.

Nucleated centers

It was observed that, in the municipality of Turbo, the following places are established as a nucleated center for the commercialization of the products.:

- *Waffe Pier:*

Located in Turbo Bay, it is a public dock used by smaller vessels to load and unload merchandise and people, to maritime and fluvial routes, as well as to receive and dispatch cattle from the department of Chocó and for local consumption and shipment to the interior of the country, in an incipient way and without administrative order for its operation (See Photograph No. 5.21).





Photograph No. 5.11 Jetty El Waffe, in the Municipality of Turbo.
Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

- *Public Service Hall*

Turbo has a Public Service Hall where different offices such as legal medicine, ICBF, Mintrabajo and the Children's Police operate (See Photograph No. 5.22.).

⁵⁸ Development Plan 2012 to 2015. Returning to the path towards progress. Turbo. P. 73

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Photograph No. 5.12 House of Justice of the municipality of Turbo.
Source: Photograph taken from the Accountability Report of the Planning Secretariat. Year 2012



Mass media

The mayor's office of the PISISI television promoter association exists as a non-profit company, focused on the production and promotion of educational, cultural and community television

The municipality of Turbo has all the existing means of communication:

In the township there is a television signal, no written media, but the proximity to Apartadó or Turbo allows access to them. They do not have a community radio station, but regional radio stations

In the turbo municipality, private national channels (RCN and Caracol) and public channels such as Canal Uno, Señal Colombia and Señal Institucional are broadcast. In the same way, there is the local television channel PISISI, oriented to the production and promotion of educational television, culture and community, the only television medium in the municipality that emits its images and sounds to reflect the interests of its inhabitants, disclosing the news, cultural, academic and social events of a formative and educational nature to strengthen the sense of belonging.

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Heading the written media such as the press, at the departmental level there are newspapers of mass circulation such as La Verdad, El Colombiano, El Tiempo Q'hubo, but generally the community does not have access to information through newspapers due to lack of economic resources.

Other means of communication used by the municipal administration are social networks, in addition to more local media such as megaphones through which events, billboards and parochial notices are announced through the existing religious communities; community leaders are also identified as multipliers of information.

Holy Field and Cemetery

The Nuestra Senora del Carmen cemetery, is the only existing one in the municipality. (See Photograph No. 5.24).





Photograph No. 5.13 Turbo Cemetery

Source: Taken from <http://www.las2orillas.co/el-sepulturero-de-turbo-antioquia/>

Market places and animal benefit plants

Turbo Market Square: This building was built for the commercialization of the products, grouping the street vendors in a public collection center. It is important to clarify that, despite the existence of this square, the products are still marketed on the Waffe jetty and on the outside of the building (See Photograph No. 5.25).

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Photograph No. 5.14 Market Square of the Municipality of Turbo.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

According to the information obtained from the Territorial Ordinance Plan of the Municipality of Turbo in 2000, the absence of animal benefit plants could be evidenced. In some villages slaughter activities are carried out sporadically and clandestinely, in unhygienic conditions, endangering the health of the inhabitants, by the contamination that the meat acquires when it comes into contact with the ground; in addition, there is no sanitary control of the animals to be sacrificed.⁵⁹



5.3.3.4 Public services Minor -Territorial Units

According to article 2 of Law 142 of 1994⁶⁰, one of the purposes of the intervention of the State in the provision of public services is the priority attention of the unsatisfied basic needs (NBI) in terms of drinking water and basic sanitation.

In this regard, access to the aqueduct in homes plays a fundamental role, in addition, the absence of drinking water in homes is a key factor of the INBI (Index of Unsatisfied Basic Needs) and an aspect related to the vulnerability of households in terms of health.

⁵⁹ Land Management Plan, Municipality of Turbo. Book 1 Part 2. Biotic Diagnosis. P. 46.

⁶⁰ Law 142 of 1994. Article 2o. State intervention in public services. The State will intervene in public services, in accordance with the competition rules referred to in this Law, within the framework of the provisions of articles 334, 336, 365, 366, 367, 368, 369, 370 of the Political Constitution, for the following purposes...) priority attention to unmet basic needs in terms of drinking water and basic sanitation.

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5.3.3.5 Minor Territorial Unit of Nueva Colonia

Water and sewage

Regarding the public services of the population centers of Nueva Colonia, Currulao and Rio Grande, its known that both water and energy have a coverage of a 100%, and with respect to sewage, there is no coverage for this area, but it is currently building the sewage master plan in these three population centers (Table No. 5.19, Table No. 5.20).

Table No. 5.19 Access Information to drinking water in the Township Nueva Colonia

Water for consumption			
Aqueduct	Well	Rain water	River
857	246	2785	10

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015



Table No. 5.20 Access Information to sanitation in the Township Nueva Colonia

Sanitary Service			
Septic tank	Without sewage or well	Toilet	Don't have
1993	709	10	1186

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

In the rural sector, the service is provided with poor quality water and without adequate treatment.

In Nueva Colonia, E.P.M. has a Customer Service Office (Photograph No. 5.15), where users can report the status of their services as well as claim or express their concerns for the same.

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Photograph No. 5.15 Customer service office of public companies of Medellín in the Corregimiento of Nueva Colonia

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

The township of Nueva Colonia presents in its urban area a good coverage at drinking water level. The water is stored in a large tank and supplies the township of Currulao. The source of supply is the Los Mandarinos stream.



Energy

The energy service in the Township Nueva Colonia presents a 100% coverage in the populated center (Photo No. 5.16 and Table No. 5.21).

Table No. 5.21 Access to energy in the Township Nueva Colonia

Cooking fuel				
E.Power	Gas	Petroleum	Charcoal	Wood
34	3135	13	21	657

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

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Photograph No. 5.16 Electrical networks in the Township Nueva Colonia
Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Fuel gas

The installation of the natural gas network in the rural areas of the Antioquia Urabá is identified in the township of El Tres, Currulao, Rio Grande and Nueva Colonia (Table No. 5.21).

Collection, transport and disposal of solid waste

The collection, transport and disposal of solid waste, is done in the township of Nueva Colonia twice a week namely Tuesday and Friday at 6: a.m. to 2: p.m schedule., by the company FUTURASEO S.A. (Table No. 5.22)

Table No. 5.22 Solid waste disposal in the Township Nueva Colonia



Garbage Removal				
Toilet services	That bury	That burn	In the patio	In the river
2815	140	761	166	16

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Internet and Telephony

In relation to the media, in the township of Nueva Colonia, the use of mobile telephony prevails. There is good telephony coverage, both for landlines and mobile telephone systems, which are acquired by the population on a personal basis. Additionally, the business of selling cell phone minutes is presented, which generates income for people who do not have formal employment (Table No. 5.23).

Table No. 5.23 Access to home public services in the Township Nueva Colonia

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Home Public Services				
Energy	Aqueduct	Toilet	Natural gas	Landline
3601	2610	2868	14	294

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015



5.3.3.6 Minor Territorial Unit -The Canal

Aqueduct and sewerage

In the El Canal settlement, access to the aqueduct and potable water service presents a critical situation that affects the healthy development of its inhabitants. While it is true that the population has generated alternative solutions, it is also clear that their basic needs are unsatisfied because the water supply in this population is developed in informal conditions through the collection of rainwater as an additional alternative for the provision of water. Additionally, the inhabitants of this settlement buy drinking water in the urban area of the township of Nueva Colonia, especially for the preparation of food.

The water supply comes from the use of bins located side by side on top of the dwellings roofs of the nearby canal, without any purification system, as shown in Photograph No. 5.17 and Table No. 5.24.



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Photograph No. 5.17 Water collection system in the El Canal settlement



Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Table No. 5.24 Access to drinking water in the El Canal village.

No. of homes	Aqueduct	River	Well	R. of rainwater	Purchase
28	0	0	0	28	28

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

The aqueduct and sewage service do not exist in the Canal settlement; additionally, there are no septic tanks; The disposal of feces is carried out in the open field or in plastic bags. In some houses they have a plastic structure to delimit the area as a bathroom in the house, without having in it any hydro-sanitary element, as shown in Photograph No. 5.13.

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Photograph No. 5.18 Structure in wood and plastic used as a bathroom in the Canal settlement.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Power

Regarding the population of the El Canal settlement, access to electric power has been available since August 2010, due to the support of the promoter of the Puerto Bahía Colombia project in Urabá and the management of the EPM. making possible an electrical connection taken from Nueva Colonia to the project site, a derivation with an electrical transformer will be connected, from which power was derived to the houses of the village). Before this date, the community was lit with candles, kerosene and cooked with wood and other means with pipette gas.⁶¹

92.8% of homes in El Canal have power service, as shown in Table No. 5.25, although it should be noted that only 9 homes have an power meter; the remaining 19 do not access the service in regular conditions.

⁶¹ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAUJO IBARRA & ASOCIADOS S.A .Op. cit. p.113.



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Table No. 5.25 Electricity service -El Canal settlement.



No. of homes	Energy	
	Yes	No
28	26	2

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

In the same way, networks are identified in some dwellings tended by the community, without the due technical specifications established by the network operator, which represents a danger for the population settled there.

Homes are identified that alternately use candles and kerosene and that cook with propane gas through pipettes, and it should be noted that all Canal homes are built in wood and plastic, which can pose a risk to the families that live the area (See Photograph No. 5.14).



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Photograph No. 5.19. Connections to the energy service in the El Canal settlement
Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015



Fuel gas

The population of the El Canal settlement does not have residential gas service, so the population must resort to alternative means such as propane gas in pipettes, firewood and coal for the preparation of their food.

The acquisition of gas occurs through transport by boat through the Nueva Colonia Canal or, through land.

The service is provided by the company GASAN S.A; It is delivered to the population with an approximate cost of \$ 60,000 pesos.

When this service cannot be accessed, they cook with charcoal and firewood, options that end up affecting the community by the indiscriminate felling of trees and mangroves, which are not recovered, a situation that also affects the ecosystem present in the area (See Photograph No. 5.15).

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Photograph No. 5.20 Use of propane gas in El Canal settlement.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

Collection, transport and disposal of solid waste

In the community of El Canal, CORPOURABA built a wooden hut built on piles and cement floor, to dispose recyclable materials; there are also small plastic tanks in the settlement's street trees, destined like public rubbish dumps.

The garbage collection service is carried out every 15 days. Although the service is provided by the Futuraseo S.A. company, and there is an organization in the management of garbage, there is still evidence of solid waste disposal in the open field and nearby water sources such as the Nueva Colonia canal. (See Photograph No. 5.16)

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Photograph No. 5.21 Place of disposition. Recycling in the El Canal settlement.

Source: PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAUJO IBARRA & ASOCIADOS S.A. Environmental impact study 2012.

Because of the poor disposal of solid waste, a community exposure to public health risk factors is inferred, generating substantial problems of environmental contamination that can be associated with some diseases suffered by the population, especially children.

As stated in Table No. 5.26, of the 28 homes that are identified in the area, in addition to using the service provided by the company, some homes dispose of their waste in the open field or the Nueva Colonia canal. Some homes incinerate garbage that is not biodegradable, and from the 28 identified homes only 5 perform recycling activities.

Table No. 5.26 Management and disposal of solid waste in El Canal.



Total N of homes	Recycle	Disposition to the Nueva Colonia canal	That bury and burn	Open field
28	5	2	8	3

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015,

Internet and Telephony

In relation to the media, in the El Canal settlement, there is mobile telephone service through companies such as Tigo, Movistar and Claro, which is acquired by the population in their personal capacity. Also identified in the Township, minutes sale business.

Similarly, some homes that have DIRECTV service were identified, as shown in the following Photographs No. 5.17.

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Photographs No. 5.22 Telephony cable service

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

5.3.3.7 Social Services -Minor Territorial Units- Township Nueva Colonia and El Canal Settlement

Health infrastructure

The health service provided in the township of Nueva Colonia is precarious, since it only has the Félix Londoño Health post, which does not have an ambulance service and neither does it offer medical specialists.

Basic emergency care is very limited due to the absence of general practitioners to cover the shifts and cover the demand. It has 4 offices but only one doctor attends 24 hours a day, two nursing assistants, one dentist and one oral hygienist.

For the vaccination programs, health promotion and prevention of the disease, these are attended by 10 health promoters. (See Photograph No. 5.23)



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Photo No. 5.8 Health Center in the Township Nueva Colonia.



Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

The population of the El Canal settlement does not have health services, since all health care must be requested in Nueva Colonia, belonging in its entirety to the subsidized regime through service providers such as ENDISALUD, CAPRECOM, SALUDCOOP, COMFAMA. As stated in Table No. 5.27.

Table No. 5.27 Access to the health service of the El Canal population.

Subsidized regime		Contributive regime	
Entities that provide the service	Number of families	Entities that provide the service	Number of families
ENDISALUD	10	Does not register	0
CAPRECOM	2	Does not register	0
SALUDCOOP	1	Does not register	0
COMFAMA	16	Does not register	0
Does not register coverage	3	Does not register	0

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

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The most common diseases that occur in the population of El Canal settlement are associated with respiratory diseases, back pain, gastritis, blood pressure, kidney problems, diarrheal diseases, among others.

Education Infrastructure

The educational system of the township in spite of having a population of more than 17,000 inhabitants, only has 6 educational institutions; two of which are for infant education, the other ones for high school (See Table No. 5.28).

It should be noted that another educational establishment is currently under construction.



The following are some educational institutions. (Photograph No. 5.9).

Table No. 5.28 Educational institutions of Nueva Colonia.

N	EDUCATIONAL INSTITUTIONS
1	Child Development Center “sueños de compartir”
2	Child Development Center “Radiante sonrisa”
3	I.E Nueva Colonia
4	I.E Nueva Colonia El Canal
5	I.E Comunal San Jorge - Rector
6	I.E Puerto Boy – Director

Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015



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Photograph No. 5.9 Instituciones Educativas Nueva Colonia.
Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015

Nueva Colonia has a public library, managed by the Uniban Foundation and the municipal administration. There is an information center to which the community has access and it is also used for meetings of different grassroots groups, such as Pro-development (See Photograph No. 5.28).





Photograph No. 5.10 Nueva Colonia Public Library.

Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015.

The El Canal settlement has a potential of 70 people of school age, of which only 75% are studying, reaching the first years of secondary school and only one is in secondary education; two in technical training and none at a higher level, as shown in Table No. 5.24.

There is a high rate of illiteracy in the adult population, finding 10 people who cannot read or write.

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Students who are in high school have to travel to Nueva Colonia and many of the young people drop out before finishing their studies, either to go to work or to form a new family (Table No. 5.29).

Table No. 5.29 Schooling of the El Canal settlement.

Grade	NUMBER OF STUDENTS
Preschool	10
Primary school (1° - 5°)	24
Basic high school	14
Middle education	1
High School Diploma validation	2
School age and not studying	2
Higher education	0
Technician (Pharmaceutical Service and Technician in electricity)	2
Total	55

Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015



El Canal has an educational campus, with wooden structure, consisting of two rooms, one where the classes are taught and the other enabled as a student dining room.

The school does not have a sanitary facility, does not have space for recreation, provides refreshments for students, does not have housing for teachers and does not have enough pedagogical material (Photograph No. 5.29).



Photograph No. 5.11 School located in El Canal settlement.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

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- *Training for work*

Regarding training for work, in the smaller onshore units there is the commitment of the NEO Urabá Program, to train young people and prepare them in port, agricultural and construction matters.

The expectations of young people are focused on training in different programs, which will allow them to qualify to aspire to vacancies that may arise in the construction and operation of the Port Terminal.

Recreational and sports infrastructure

In the township of Nueva Colonia, people have very few opportunities for healthy and complete recreational and sports leisure.

The township only has sport center fields in the educative institutions, but with limited use only for its students and during a determined time.

It is important to highlight that, although the township does not have sporting scenarios, nor with specific training processes, it has been possible to recognize athletes at national level, who have had to emigrate for their training.



In their need to occupy their free time, young people use vacant lots provisionally as sports and recreational fields (Photo No. 5.30).



Photograph No. 5.12 Spaces used in Nueva Colonia for sports and recreational activities.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

In the El Canal settlement, the absence of sports and recreational scenarios for the community was evident.

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Regarding this issue, families were consulted on the way they recreate or practice a sport, finding that only 11 of the 44 young people in el Canal community played football on an occasional basis because they did not have adequate courts and 7 of them do it in the same community (Table No. 5.30).

This indicator shows very little use of free time in activities that allow young people to develop their skills and abilities. This can also be reflected in the lack of a life project in young people, high school dropouts, early pregnancies and other problems caused by the lack of recreational and sports spaces and services (Photograph No. 5.31).

Table No. 5.30 El Canal Community Soccer Practice.

Place	Number of participants
El Canal settlement Field	7
Nueva Colonia Field	2
Corruaños del Darién, synthetic field of Camacol	1
La Palmita De Coco (Bahía Colombia)	1
Not practicing any sport	25
Total	36



Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015.



Photograph No. 5.13 Some spaces taken as sports and recreational scenarios in El Canal settlement.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

Regarding recreation, the panorama is not different, although most are aware of the importance of generating recreational spaces for the family, they do not do it frequently. 32 of them carry out rides in the León river and the beach of Nueva

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Colonia. 2 of the families do not recreate or practice any sport and two of them take walks to Nueva Colonia as a recreational activity (Table No. 5.31).

Table No. 5.31 Recreational activities of El Canal families.

Activities	Number of participants
Walks in the León River	17
Walking through the area	2
Walk to the Beaches of Nueva Colonia	15
Not recreating	2

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

Housing

Housing, as an infrastructure and development space for individuals, where the internal and external relationships of the family group succeed and sustain, generating identity and being rooted in the territory, is one of the basic elements to determine the quality of life. In this way, variables such as housing typology, overcrowding and tenure will be analyzed in this section.



- *Typology of housing*

Minor Onshore Unit Nueva Colonia: This Onshore unit is made up of 3,898 homes based on the information provided by the SISBEN office of the Municipality of Turbo. Out of the total of the houses, 2,366 correspond to dwellings type house and 1,532 correspond to rooms or apartments.

Nueva Colonia township is a settlement of nucleated population, consisting of several well-laid streets, some of them even paved.

Minor Onshore Unit El Canal settlement: In terms of the dwellings located in the El Canal settlement, according to the census conducted in June of this year, the existence of 28 constructed on a muddy, unstable and flooding ground was demonstrated daily by the tide and when it rains, by the overflow of the Nueva Colonia canal.

The structure of 12 houses is palafitic due to the conditions of the land, many families are conscious of improving the habitability and built the houses with these characteristics (Photograph No. 5.33).

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Photograph No. 5.14 Characteristics of housing at El Canal settlement.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

- *Predominant material of the housing.*

Minor Onshore Unit Nueva Colonia: To analyze the quality of the home, it is necessary to review aspects such as the type of materials used in floors and walls, since these, to a large extent, guarantee adequate conditions of habitability.

Table No. 5.32 Predominant material of floors and walls of the houses of Nueva Colonias



Predominant wall material				Predominant material of floors			
Brick	Prefabricated	Wood	Other	Tile	Cement	Wood	Dirt
1358	38	2424	78	185	2368	25	1320

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

The predominant material in Nueva Colonia houses' walls is wood and brick. Only 38 prefabricated homes that are in optimal conditions were identified. In front of the floor material (Table No. 5.32), a predominant use of cement is reported, followed by the use of soil, tile and wood. Few houses are built in materials such as brick, cement and tile from Eternit; the majority is built in wood with asphalt or zinc tile.

The populated center has a wide commercial area in which different commercial activities are developed. The use of the land is mixed.

The infrastructure of the homes of the jetty area is now, in general, of commercial use (See Photograph No. 5.32).

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Photograph No. 5.15 Structure of the houses and commercial establishments in the jetty area of Nueva Colonia.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

All the constructions are one floor high and only the service buildings to the jetty exceed the height. Except for the latter, where metal and exposed concrete predominate in structures of high technological demand, the materials that predominate in the township are wood in the enclosures, cement and dirt in the floors, and covered in zinc.⁶²

In the most consolidated part of the county town there are concrete block constructions, tile floors and asbestos roofs, a type of construction that prevailed in the UNIBAN neighborhood -a sector of high contrast with the rest of the urban area and especially with the neighborhood 29 de Diciembre, sector that is in the first stage of occupation even in the process of invasion.⁶³

Minor Onshore Unit El Canal settlement: In its entirety, the houses located in El Canal are in poor condition, due to the small spaces that the houses have, the high number of families per house that generates overcrowding; besides the absence of spaces like bathroom for the sanitary service. In many of the houses, a structure of wood and plastic is conditioned to be used as a bathroom

Only 53% of the houses have a space destined for the kitchen; the remaining 47% carry out their house chores in the same room (Table No. 5.33).

⁶² Ibid.

⁶³ Ibid.



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Table No. 5.33 Housing space in the Minor Onshore Unit El Canal

Housing space	No. of houses that own it				Space number
Room	1	2	3	4	
	17	9	1	1	
Living room	10				1
Kitchen	15				1
Yard and laundry area	14				1
Dinning room	1				1
Garden	0				0
Toilet	0				0

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

100% of the walls of the houses are built in wood, 82% of the houses are in good condition, 14% regular condition and 4% of the houses are in poor condition.

The floor of 12 houses is built in wood with palafitic structure, of which 84% is in regular condition and 16% in good condition. (See Table No. 5.34).

Table No. 5.34 Characteristics of the Housing in the Minor Onshore Unit El Canal

Structure and material of the house		Conditions of the house			
UNIT	MATERIAL	G	R	P	Total
Walls	Wood	1	23	4	28
Floors	Cement	0	4	1	
	Wood	2	10	0	
	Dirt	0	5	6	
Cover	Eternit		1		
	Zinc	4	21	2	

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015



As the houses are small, there is overcrowding in the houses; families are extended, and in many cases, there is rent by room, which increases the problems of environmental sanitation.⁶⁴

- *Housing tenure.*

The housing tenure is related to the way in which people make ties with the place where they live. The most common types of tenure are property, lease, use or possession loan.

Minor Onshore Unit Nueva Colonia: As in the entire Urabá region, the distribution of property is mainly private, destined for agricultural work characterized by the concentration of land between owners with those of 20 ha; the medium and large

⁶⁴ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. & ARAUJO IBARRA & ASOCIADOS S.A .Op. cit. p. 469.

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owners cover approximately 49.35% and 37.32% respectively and represent 26.82% and 2.02% of the owners. On the other hand, in the rural area the microfundistas and minifundistas, constitute 31.74% and 25.30% of the owners but they concentrate 1.33% and 5.1% of the land respectively.

In terms of the possession of housing in Nueva Colonia, it is reported by the SISBEN office of the municipality of Turbo, 939 dwellings for rent, 1814 dwellings which in the owners are owners and 1145 another kind of tenancy (possession, commodatum).

Minor Onshore Unit El Canal settlement: The 36 families are living in 28 homes, of which 26 are inhabited by their owners, the remaining two are, one of them rented and the other one is cared for by a relative.

According to the process that the FUNDAUNIBAN foundation has been carrying out with the families, 35 families of the 36 existing have their new home defined with their respective legalization documents to proceed in October 2015, when making the transfer to said families. households; the family that is pending to move, is in the process of legalizing their situation.

Below find comparative photographs of the current state of the house and the one being built for families (Photograph No. 5.31).

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Houses' condition in El Canal Settlement



Housing under construction for the El Canal settlement community



Houses' condition in El Canal Settlement





Housing under construction for the El Canal settlement community

Photograph No. 5.16 Housing conditions of the community of the Canal settlement before and after

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

The community of the settlement El Canal, has been populating the plot of land for the past 19 years in a concentrated manner, for which the settlement is characterized for being a nucleated settlement, in which homes have been built in a concentrated manner, although leaving broad boundaries in their properties.

In accordance with the above, and considering the economic, social and cultural dynamics, the families belonging to this settlement, began a process of joint construction of their new housing environment. This process has been led by the FUNDAUNIBAN foundation, accompanied by participatory processes with the community in which the current setting of the settlement was started, to create a future scenario in which the community actively contributed in the design of their new homes, as well as the spaces and social areas required (Photograph No. 5.32).

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Current social areas in the El Canal settlement



Social areas in El Canal House complex

Photograph No. 5.17 Current and future social areas El Canal Community.



Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

Transportation infrastructure

The rural roads are of the highest importance for the dynamics of development that the municipality can have since, both the number of roads and their state, outline the capacity of this one to transport the production of the rural area, where productive activities are concentrated in the municipal seat or other centers of consumption.⁶⁵

To get to Nueva Colonia is 11 km, entering by the Troncal road, in the direction of Colombia Bay (mouth of the León River), the detour is made at La Apartada (corregimiento of Rio Grande). The condition of the road can be observed in Photograph No. 5.33.

⁶⁵ MINISTRY OF LABOUR, Op. cit., p. 60.

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Photograph No. 5.18 Vía hacia el Nueva Colonia township.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

The El Canal settlement is accessed by uncovered road or by water; there is no regular transport, so that, in order to arrive, it is necessary to rent a motorcycle taxi or a boat (canoe). The cost of ground transportation per person from Nueva Colonia to El Canal is \$ 2,000 COP.

The inhabitants of El Canal commute by walking and they take about 30 minutes to Nueva Colonia.

To get to the municipality of Apartadó, there are frequent transportation routes from Nueva Colonia and the cost of the ticket is \$2,500 COP, while Turbo is worth \$3,500 COP and it is occasional (Photograph No. 5.34).

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Photograph No. 5.19 Road to El Canal settlement.



Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

In Nueva Colonia township and El Canal settlement, they do not have public transport within the urban perimeter.

For this reason, the three-wheeler van service is used, which allows 3 passengers to be transported for a very low price.

The service of private motorcycles is also very common in this place, as it is observed in the Photograph No. 5.35.

On the other hand, the banana plantations have transport routes for their employees, such as buses and minibuses that allow them to travel to their workplaces.

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Photograph No. 5.20 Motorcycles used for mobility in Nueva Colonia.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

Nucleated centers



The commercial activities of the municipality of Turbo, are confined to the area at the Nueva Colonia jetty. From there the product of fishing and other agricultural activities is commercialized (See Photograph No. 5.36).



Photograph No. 5.21 Nueva Colonia Jetty.

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

Both Nueva Colonia township and the El Canal settlement do not have the infrastructure to go to social services.

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Media

In Nueva Colonia township there is a television signal, no written media, but the proximity to Apartadó or Turbo allows access to them. They do not have a community radio station, but can access regional radio stations.⁶⁶

In el Canal, families have a television signal, although they do not have community radio stations.

Graveyard and Cemetery.

Nueva Colonia township has a cemetery that is currently in the process of being restored.

Market places and animal benefit plants



Neither Nueva Colonia township nor El Canal settlement have a market place. Existing product marketing businesses are located in the area near the boarding area (See Photograph No. 5.37).



Photograph No. 5.22 Commercial establishments in the Minor Onshore unit of Nueva Colonia

Source: Made by Aqua & Terra Consultores Asociados S.A.S, 2015

⁶⁶ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAUJO IBARRA & ASOCIADOS S.A .Op. cit. p. 469.

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5.3.4 Componente Económico

The municipality of Turbo is characterized by its high potential for economic and social development, which, combined with its strategic geographical location, has become one of the regions with the greatest potential. The possibility of developing an entire port platform, together with the creation of free zones that provide incentives for new industrial developments, has made it a highly attractive area for the development of business ideas, agroindustrial, commercial and port development.

In contrast to the above, the municipality registers high levels of poverty and inequality that have caused the increase in the levels of labor informality and insecurity that afflict the Turbo population.

Among the main economic sectors of the municipality, the agroindustry, trade, export, construction, artisanal fishing and port activities stand out.

This section intends to give a general overview of the economic dynamics based on the structure of property, the main sectors and economic activities, labor market indicators and development poles.

5.3.4.1 Major Onshore unit: Turbo Municipality

Property Structure



In the Coastal Environmental Unit - UAC-Darién, low levels of socioeconomic development were observed, generated over time by the development of unsustainable productive systems, under a model of purely extractive use.

In the area, different productive activities are carried out that vary according to the degree of technological development and market orientation. On the one hand, there are business production systems and on the other, traditional ones; both carried out without proper planning towards environmental sustainability⁶⁷.

Turbo is one of the oldest municipalities in Colombia, which has a high biodiversity.

It is estimated that it is one of the municipalities of Antioquia with the highest levels of unemployment and with one of the lowest curves in projection of economic growth,

⁶⁷ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 475.

	MODIFICATION OF ENVIRONMENTAL LICENSE FOR THE CONSTRUCTION AND OPERATION PROJECT OF A PORT TERMINAL OF SOLID BULK CARGOES IN THE MUNICIPALITY OF TURBO		
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due to its few political initiatives that orient its growth in wrong directions, which is why large opportunities to not turn this municipality into a large company dedicated to agro-industry and many other sources of capital generation⁶⁸.

Antioquia is a department with a high specialization of agricultural activity in its different regions, it is undeniable that the contribution of the plantain and banana sector to the economic life of the area is decisive.

Productive and technological processes

In general, the region of Urabá has been characterized by having a peasant agriculture represented by products such as banana, plantain, corn, cocoa, cassava, rice and palm oil.

This agriculture has developed in traditional productive processes without technification, areas cultivated in family plots managed and commercialized by the same owners, without much production and scarce marketing channels, based on subsistence economy.⁶⁹

For the municipality of Turbo, the predominant economic activity is the agricultural sector, although the commercial activity has been for several years the sustenance of informal employment, as it is a preferential customs area.

The economic dynamics of the municipality revolves mainly around the export of bananas and plantains, whose crops are presented in the piedmont area and the Abibe mountain range. Other products of the peasant economy, such as corn, rice, cassava and some plantain crops are found in small intramontane valleys.

However, the area of land dedicated to agricultural activity is 28,085 hectares, a small figure in proportion to the extensive territory of the municipality ⁷⁰.



The peasant economy in the township is located in two zones: the floodplains and the foothills of the Abibe mountain range.

First, there are the villages Manatías, Los Mangos, La Pola, Santa Fe de los Mangos and La Rosita, belonging to the alluvial valley of León River and Nueva Colonia township.

⁶⁸ 2012 - 2015 Development Plan. Rethinking the path to progress. Turbo City Hall P.42.

⁶⁹ Ibid.

⁷⁰ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 476.

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This set of trails is between the area of caciles del Suriquí, by the west, bordering the lower part of the gulf, and in the area of livestock expansion, by the south, which has been extending its border from the Pan-American through El Veinte settlement, Kilometer Three, Cocuelo, La Fe, among other sidewalks of this flank.

In these villages there are movements of “sabaneros” who have undertaken their return to Monteria and their places of origin, whose plots have been, some bought, others abandoned and some awarded to new owners⁷¹.

The subsistence economy is threatened by the expansion of land for livestock. The township has 741 livestock farms but the average size is not specified, although it is considered that 255.6 hectares is the Family Agricultural Unit - UAF for beef cattle which would be equivalent to 189,000 hectares.

These farms are distributed as follows: 219 farms towards the limits with the municipality of San Pedro de Urabá in the intramontane valleys, through which the Mulatos river transits; 374 farms between the piedmont and the township head and 198 farms near the Panamerican.

According to the aforementioned, there are more land than the ones considered potential for livestock use, less land than the ones considered potential for agriculture and less in conservation areas than the existing ones, which shows a conflict of uses and a social problem that the Onshore order must face.

This situation and the need for land for the peasants, has generated, from the past, a strong pressure for the land whose access has had two ways: the facto one (invasions) and the adjudications of INCORA.⁷²



Commercial agriculture, on the other side side, is characterized by the technification of production and marketing of banana and plantain products for the external market, by large areas cultivated and managed by people other than the owners, high yields and low added value. This activity is located in the downtown area, concentrated in the territory called the Bananero Hub, confirmed by the municipalities of Apartadó, Carepa, Chigorodó and Turbo, the latter being the largest employment generator.⁷³

In environmental matters, the problem of depletion of natural resources is identified; the restrictions and controls are increasing on the exploitation of natural resources - especially the forest that is related to the settlers - and almost the exhaustion of

⁷¹ Ibid.

⁷² Ibid.

⁷³ MINISTRY OF LABOUR, Op. cit., p. 66.

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them, which has blurred the status of settler both in the township and throughout the region.

This does not mean that the potential colonization zones have been depleted (the township has 74,111 hectares in its forests - 24.25% - of its total area), such as the Leon River that is part of the Darién Gap, whose vocation is clearly forest but that can be turned into cattle lands, by means of processes of desiccation of soils as it has happened in other zones of similar characteristics, which does not correspond with the sustainable uses of said areas⁷⁴.



The different activities existing in the municipality will be described according to the degree of incidence in their economy.

Characterization of the labor market

In terms of commercial activities, only 3.6% of households have an economic activity. This shows that the rest of the households have income from salaries of 1 or 2 of its members. On the other hand, 55.6% of the establishments are dedicated to trade, while only 6% have industrial dedication⁷⁵ (Figure No. 5.17).

⁷⁴ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 476.

⁷⁵ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 479.

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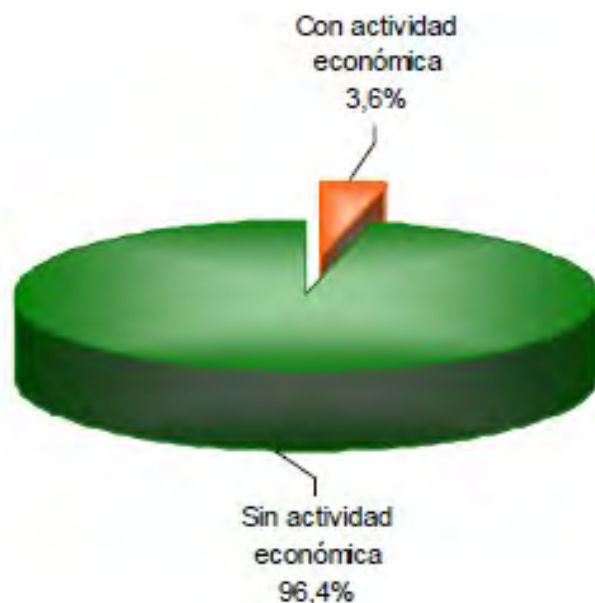


Figure No. 5.17 Economy of Turbo households



Source: Source: DANE. 2005 census.

According to the information from the Ministry of Agriculture and Rural Development, Turbo has the main production of banana followed by plantain, which shows the importance of agriculture in this sector of the department (See Table No. 5.35).

Table No. 5.35 Turbo agricultural products.

Ten main agricultural products 2013	
Products	Tons produced
Banana export	363.453,42
Plantain monoculture	199.740,00
Traditional corn	6.067,50
Yuca	3.850,00
Avocado	2.390,00
Yam	1.710,00
Traditional rice	1.434,30
Cocoa	824,40
Mango	127,00
Coconut	31,50

Source: Regional Government of Antioquia, Ministry of Agriculture and Rural Development

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The trade of Turbo has 55.6% within the economy of the Municipality, according to data generated by the DANE, followed by 35.6% in services and only 6.3% dedicated to the industrial sector. (See Figure No. 5.18).

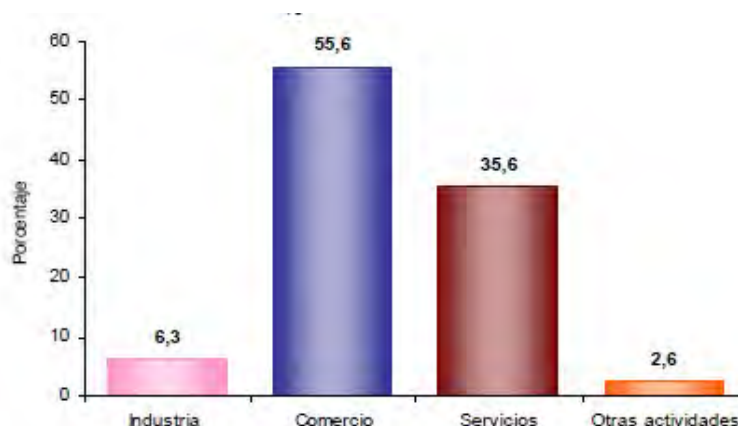


Figure No. 5.18 Economy of the Municipality of Turbo

Source: DANE 2005



According to data reported by the DNP, the total population of the municipality of Turbo is 69,268 rural inhabitants (62% of the population); there are 11,000 producers in a very small area (28,205 hectares); those rural people who do not have land seek subsistence as workers in the banana and plantain industry, which generates the most employment. A negligible proportion works in the 741 cattle farms that employ very little labor and other residents occupy activities related to the gulf⁷⁶.

The gulf is a very important ecosystem in the regional life and prints a particularity to Turbo, for what it represents for the daily life of its inhabitants in terms of the variety of trades that are generated: braceros, boatmen, merchants, fishermen. This other range of jobs gives Turbo a relatively greater autonomy than the other municipalities of the axis to look for income outside the rural sector⁷⁷.

In Turbo the condition of bracero on the condition of agricultural worker stands out. The union - in dissolution - in the past, printed a strong organizational and clientelistic dynamics to many of the job seekers who found in it - in addition to the demands and labor struggles - the mediation between the cultural vocation for the offshore or aquatic environments and the incorporation into new economic forms with labor rules imposed by the banana economy.

⁷⁶ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 479.

⁷⁷ Ibid.

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This office keeps them tied to their environment and in the process incorporates them into a new scenario of economic modernization, prelude to their status as urban inhabitants in hybridization with their aquatic environment.⁷⁸

Most of these braceros inhabit the head of Turbo and corregimientos of the road near the road to the piers. Every time (by trade, mentality, labor organization and politics) they are more than all inhabitants with urban characteristics).⁷⁹

Agricultural activity.

In the agricultural sector, the Municipality of Turbo, stands out the production of monoculture banana and export bananas, which have become the main activity of the region, generating from its production until the export phase approximately 16,911 jobs, of which 4228 are direct, as Source of employment that has created a cultural identity in the municipality.

Other peasant and technified products are also identified, such as papaya, Hawaiian papaya, traditional rice, rice, corn, cassava, industrial cassava, corn, chilli, yam, diamond yam, cocoa, avocado, rubber, mango, “pajarito” lemon (Secretariat de Agriculture and Rural Development, 2006).



• *Productive Plantain Chain*

In Turbo, the chain is made up of the following links:

- The production, that is, plantain growers that are mostly small producers with farms between three and five hectares, which sell their production to the large traders present in the municipality.
- The marketing, which is made up of buyers of the first instance of the fruit, which are located in the municipalities where production occurs, which include Uniban, Banacol and DOLE, which are in turn owned by many of the farms producers and who are responsible for collecting and bringing the product to wholesalers, which generally correspond to exports. There is also the case in which the reject banana is sold in the local market. The same marketers own the cardboard and plastic factories in which the product is packed, once all the quality standards have been passed.
- The third identified is the one formed by the processing industry, where although there is no great activity of product transformation, if the brand is identified, for

⁷⁸ Influence of the Gulf of Urabá. Prepared by Elsy Peruchó Gómez. Santafé de Bogotá, September 1998

⁷⁹ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 479.

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example the Uniban marketer, which currently produces, sells and exports plantain chips in the national and international markets. In total there are nine flavors: natural, lemon, chile, lemon-chile, ripe, garlic, cheddar cheese and green plantain. The chips are distributed in the United States, Europe and the Caribbean.

Livestock activity.



Secondly, there is the livestock part, where the dual purpose cattle exploitation stands out. It can be said that in the municipality an extensive livestock farming coexists with a semi-intensive livestock, in which lacking processes of breeding and genetic improvement are lacking. Semi-intensive livestock farming occurs in the townships of Blanquicet, Macondo, Lomas Aisladas and Nuevo Oriente⁸⁰.

This activity has suffered deterioration due to the problem of violence that originated in the region years ago, in addition to the scarce technology and the inadequate management of pastures.

According to the Municipal Agricultural Plan of 1998, the number of farms dedicated to the livestock sector was 741 with approximately 78,530 head of cattle, highlighting its location mainly between the river Mulatos and limits with the municipal head, and between the same river to the municipality of San Pedro Livestock exploitation is dedicated to satisfy local, regional demand and some surpluses are commercialized in Medellín⁸¹ (See Photograph No. 5.38).

⁸⁰Ibíd.

⁸¹ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A .Op. cit. p. 477.

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Photograph No. 5.23 Cattle observed in the León river delta.
Nueva Colonia township

Source: made by Aqua & Terra Consultores Asociados S.A.S 2015

The livestock sector in the municipality is characterized by being extensive and has problems related to poor technology, inadequate management of pastures and additionally the problem of violence that affected the investment in this activity.

According to information from the ICA of 2012, the structure of the area is as follows:

The commercialization of livestock is done directly on the farm from where it is moved to the regional slaughterhouse and then distributed in the municipal capitals to the downtown area. Livestock is also sold to the city of Medellín, where it is destined for the cattle fair of the city. Turbo is the recipient of the cattle supply of the municipalities of Urabá Chocoano and to this extent an infrastructure provision must be established that allows a better performance in this commercial exchange⁸².



- *Livestock activity productive chain*

In the municipality, small-scale dual-purpose livestock is practiced. It is evident that for 2011 the orientation of the herd of cattle was made up of 5.6% of fattening, 91.9% of double purpose and 2.5% for milk production (Agricultural Yearbook 2011. Agriculture and rural Development Bureau. government of Antioquia.)⁸³.

Turbo has greater fertility of the land for the production of pastures; Similarly, it has a larger cattle inventory compared to the municipality of Chigorodó. However, recognizing these advantages from one over the other, Turbo has a disadvantage in terms of marketing and this is largely due to not having an organized livestock guild,

⁸²Turbo Profile [Online]http://prevencionviolencia.univalle.edu.co/observatorios/antioquia/turbo/archivos/perfil_turbo.pdf.
Citado 2015-08-06.

⁸³ MINISTRY OF LABOUR, Op, cit., p.92

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for not having an association. Chigorodó has it, therefore it is the one who has the power to negotiate in Urabá.

This becomes a recommendation that was made explicit, both to the group of breeders and to the technicians of the agriculture bureau: emphasis should be placed on the processes of association, union consolidation, to be able to exercise bargaining power in the market⁸⁴.

- *Banana production chain*

In the municipality of Turbo, it is identified that the banana chain is one of the most consolidated of the analyzed activities. From the information obtained in the territory and with actors of the sector, it is possible to identify the following structure of the chain, where the marketers have a vertical integration with which it is related to other companies and business units of the same marketers.

In the case of UNIBAN, it has factories of plastics and corrugated boxes, snacks plant, shipping company, shipyards for naval maintenance, agricultural input stores, companies producing their own banana, ships for export of product, airport, fumigation planes and trading companies, Turbana Corporation in the United States, in partnership with Fyffes, and Tropical Marketing Associated, TMA, in Europe (UNIBAN, 2013)⁸⁵.

The links have almost the same structure as in the case of banana, however, in the specific case of banana production, it is developed on a larger scale than banana, where there is more number of affiliated and owned farms. of the same marketers, and its extensions range from 60 hectares to 200-300 hectares.

Fishing activity



The fishing activity in the municipality is of an artisanal and subsistence nature, due to the lack of investment and training in specific fishing activities such as the commercialization, conservation and capture of the product. Turbo is considered the main marketing center of the fish product for the Urabá area; however, its impact has not crossed the intraregional limits, due to the lack of technology to transport the product to greater distances⁸⁶.

The population dedicated to this work is around 5,000 people, which are located in the populated centers of “la Playa”, “El Waffe”, “Bocas del Atrato”, “El Pescador”, “Nueva Colonia”, “Coquitos” and “Punta de Piedra”. The supply of the fishing

⁸⁴ Ibid. P. 94

⁸⁵ MINISTRY OF LABOUR, Op, cit., p. 89

⁸⁶ MINISTRY OF LABOUR, Op, cit., p. 477.

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resource in recent years has been affected by different causes, among which are the pollution of the Gulf waters, the product of water runoff with the presence of agrochemicals, deforestation that causes the sedimentation of offshore ecosystems and the presence of "Viking" industrial ships, which cause damage to environmental sustainability within the gulf⁸⁷ (See Photograph No. 5.24).



Photograph No. 5.24 El Waffe Jetty, Municipality of Turbo.

Source: Made by Aqua & Terra Consultores Asociados S.A.S 2015



Other causes mentioned by Turbo's profile are the lack of training in specific fishing tasks: capture techniques, product preservation, commercialization, among others. In this last aspect, there is great weakness due to the lack of a collection center that allows price regulation and guarantees the quality of the product.

Another activity referenced in the Turbo profile is related to poultry farming, fish farming, pig breeding and vegetable growing. These activities make up a series of productive projects, called return projects, which becomes a great opportunity for the displaced population⁸⁸.

- *Productive chain of the fishing resource.*

⁸⁷ Development plan 2008-2011.

⁸⁸ Turbo profile [Online]http://prevencionviolencia.univalle.edu.co/observatorios/antioquia/turbo/archivos/perfil_turbo.pdf. Citado 2015-08-06.

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The municipality of Turbo is the commercialization center for the fishery product for the Urabá region. This activity takes place in the municipality, basically of an artisanal and subsistence nature, where the production of species such as the Magdalena River prochilodus, the cachama, the carp, the black tilapia and the tilapia or Surfperch roja stands out (Agriculture and Rural Development Bureau, 2011)⁸⁹.

The exploitation of fish has a specifically regional destination. Nearly six tons of fish are distributed in the municipal capitals of the region, Mutatá being the municipality with the least commercialization and Apartadó which absorbs the largest amount of the product.

Trade to other cities is not significant due to high transportation costs and technical restrictions, specifically cooling. On the contrary, the exploitation of shrimp has specific export purposes. Every month approximately three tons of shrimp are distributed in Cartagena, which have as destination the United States market⁹⁰.

Another sector of fisheries that has taken an important dynamic is onshore aquaculture, characterized by exploitation in small plots. This activity allows a source of income for farmers with low production costs⁹¹.

Next, a SWOT (Weaknesses, Opportunities, Strengths and Threats) matrix, existing in the fishing activity of the Municipality of Turbo, is established (See Figure No. 5.19).

⁸⁹ Ibid.

⁹⁰ BOOK OF DIAGNOSIS Agreement CORPOURABÁ - MUNICIPALITY - UNAL. - U of A. - ESAP. P. 15.

⁹¹ Ibid.



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Figure No. 5.19 SWOT Matrix Weaknesses, opportunities, strength and threats of fishing activity in the Municipality of Turbo



Source: Made by Aqua & Terra Consultores Asociados S.A.S 2015

Development poles or enclaves that interact with the area of influence of the component.

The Gulf of Urabá can be considered in itself a pole of development for its port vocation. It is worth mentioning that to date this vocation has only been used for the export of bananas and plantains, but that according to government development policies, it can become an important port, when the roads that connect Turbo to the center of the country, are properly adequate, a project that is in the process of being executed.

There is potential for activities such as tourism and ecotourism, given the natural resources present in the territory and cultural diversity as a tourist attraction.

It also identifies the strength that certain productive activities such as cocoa, rubber and some forestry are taking such as teak (*Tectona grandis*), which is planted in Nuevo Antioquia township, where there is an emporium that cannot be used or

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extracted by conditions of public order. There are also "agroforestry systems", which are semi-technified crops where, for example, the aim is to diversify a crop as follows: cocoa with banana and wood or cocoa with banana and fruit trees; taking into account that the planting of cocoa does not generate profits in the first two years, diversity is sought in more goods, in products such as plantain, which allows a cash flow.

The construction of the dock in the municipality has generated great expectations, both locally and regionally, given the economic advantages in terms of employment generation and positive externalities for other local production processes⁹².

While these activities are seen as potential, according to some producers, for the case of rubber, it is still in a stage of development and exploration and for which there are still no marketing experiences, but there are already crops that are expected to in a few years to increase and be an activity that meets expectations.

The corn issue is another case of the products that have gained strength, while recognizing the importance of banana and plantain.

The bet of the municipality has been to strengthen projects of this type of crops, since its installation is less expensive, compared to livestock, which favors this type of crops.



For corn, according to the soil aptitude study (conducted by the Agriculture and Rural Development Bureau, Regional Government of Antioquia, 2011), 11,728 hectares moderately suitable for harvesting were found in Turbo, 55,050 ha marginally suitable, which could indicate in a certain way, that although corn has taken on great importance and they are making bets through programs, the land for their use is mostly less suitable than for other products⁹³.

The allocation of physical factors focuses on two aspects: soil heterogeneity and landscape diversity. The municipality of Turbo has soils from class III to class VIII and with five landscape units that are: Mountain Range, where the municipality's forest systems are located; Foothills and hills where the predominant activity is agriculture of peasant economy; the alluvial fan, zone where the agro-industrial exploitation of banana and plantain is based; Floodplain, occupied by livestock activity; and the coastal complex where mangroves and wetlands are formed.

These characteristics allow the implementation of agricultural, livestock and agroforestry farms, under appropriate practices, however, current land uses do not

⁹² MINISTRY OF LABOUR, Op, cit., p.74

⁹³ Ibid.

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respond to the potential of these, as can be seen in Table No. 5.36 and Table No. 5.37.

Table No. 5.36 Distribution by area of land uses in the Major Onshore Unit of the municipality of Turbo

Use	Hectares	Percentage
Pastures	70102	22.94
Stubble	92415	30.25
Forests	74111	24.25
Wetlands and marshes	40667	13.31
Farming	28205	9.23

Source: POT Turbo Antioquia.2000 Economic diagnosis

Table No. 5.37 Land use by economic activity in the Major Onshore Unit of the municipality of Turbo

Activity	Hectares	Percentage
Farming	34750	11.37
Livestock	41500	13.58
Agriculture and cattle raising	66750	21.84
Forests	73500	24.05
Swampy areas	89000	29.13

Source: POT Turbo Antioquia.2000 Economic Diagnosis Commercial structure, marketing networks, productive chains and their relationship with regional economic dynamics

Banking services

- *Bank branches*

Over the years, the municipality of Turbo has been incorporating different bank branches, which play a fundamental role in the development of the financial system and the expansion of financing opportunities in the municipality⁹⁴ (See Table No. 5.38).

⁹⁴ MINISTRY OF LABOUR, Op, cit., p.56



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Table No. 5.38 Banking and Financial Institutions in Turbo

BANKS AND COOPERATIVES	ENTITY	ADDRESS	PHONE NUMBER
	BBVA Bank	St. 101# 14-16	(57) (4) 8272141
	Bogotá Bank	St. 101 # 13-69	(57) (4) 8275015
	Bancolombia	St. 101 # 14-55	(57) (4) 8278090
	Agrario Bank	Cra 14 # 100-15	(57) (4) 8275042
	Coopetraban	St. 102 # 14-83	(57) (4) 8272056

Made By Aqua & Terra consultores Asociados S.A.S, 2015 with information from the Ministry of Communications of the municipality year 2015

- *Non-Banking Correspondents (CNB)*

For Turbo, we found CNB of the following entities: Bancolombia and the Multibanca Colpatria Network, with seven correspondents each; Citibank with six; Finally, BBVA Colombia and Banco Caja Social BCSC each with three and one correspondent, respectively (Banco de las Oportunidades, 2013)⁹⁵.



Financing or formal credit and access to them

The main supply of credits for the agricultural sector comes from Banco Agrario de Colombia, which has its own resources and others from the Fund for the strengthening of the Agricultural Sector (Finagro).

There are several items in the Finagro credit line. First, there is the working capital loan, which finances all the direct costs involved in the productive process. Secondly, the Investment item, where the capital goods used for productive, agricultural or rural projects are financed. Third, there are special lines. Here we must highlight the program for the resettled and displaced population, who qualifies as small producers and for whom the direct costs of their projects are financed. In this last program, the bank finances up to 100% of the direct costs of agricultural projects, for working capital and investment to:

1. Associations or associations of producers, financial cooperatives and NGOs that develop productive activities integrating the vulnerable population qualified as affected by the conflict.
2. Individual population registered as reinserted that qualifies as small producers.
3. Individually registered population as in displacement situation that qualifies as small producers,

⁹⁵ Ibid.

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4. Population linked to alternative development projects that qualify as small producers.

5.3.4.2 Minor Onshore units

For the Minor Onshore units, economic relations, the structure, size and distribution of production and local economic dynamics are determined. For the above, the following aspects will be defined and analyzed:

Structure of property and forms of tenure

In the Minor Onshore Unit of Nueva Colonia, the general tendency is latifundia and large agricultural exploitation. In the case of the urban center, in 52% there are small owners of urban dwellings, due to the pressures and conflicts for the historical land of the area, the property issue is one of the main sources of conflicts and social tensions.⁹⁶

All the constructions are of one floor and only the service buildings to the piers exceed the height. Except for the latter, in which metal and exposed concrete predominate in structures of high technological demand, the materials that predominate in the township are the wood in the enclosures, cement and earth in the floors, and covered in zinc⁹⁷.

Towards the road the most consolidated sector is located (stratum 2) and in the rest of the headland stratum 1 is imposed. The average lot is 10m x 20m. Or its equivalent in area and the average number of properties per block is 24 properties. The UNIBAN sector is the only one that has legalized buildings and properties, this characteristic of general subnormality, adds to the constant risk of flooding due to rainwater impoundment, which suffers in particular the sector 29 de Noviembre, but which affects the area equally north of the township.

It has a health post and sufficient educational centers for the population although basic sanitation problems are common to all institutions. It lacks an organized commercial activity, it is concentrated along the road causing a complete chaos, despite the small space that occupies this disorder is the amount of garbage that merchants throw into the jetty.

The green areas are inadequate and insufficient. It is counted within the public spaces, the main park, the sports center plate, the court of November 29 and some

⁹⁶ Araujo Ibarra & Asociados S.A. pag. 479

⁹⁷ POT turbo. Antioquia 2000 book 2. Pag. 38

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areas within townships in conformation, but the absence of equipment or urban furniture or the total neglect of it when it exists, turns them into not very kind places for the collective experience.

- *Minor Onshore Unit el Canal*

The 36 families are living in 28 homes, of which 26 are inhabited by their owners, the remaining two are located, one rented and the other cared for by a relative.

According to the process that the FUNDAUNIBAN foundation has been carrying out with the families, 35 families of the 36 existing ones have their new home defined with their respective legalization documents to proceed in October 2015, when making the transfer to said families households; the family that is pending to move, is in the process of legalizing their situation.

Capacity and potential use of the soil



In response to the information reported in chapter 5.2 of this study, the capacity for use and management of the lands considered in this study are agricultural, livestock and forestry.

The system of land classification by capacity of use groups the soil units that have the same physical and chemical limitations for their use, and respond, therefore, to similar management practices. The system is structured in such a way that as the class increases by agrological capacity, the potential of the soil to produce diminishes, and the need to conserve and protect the soil resource increases (Table No. 5.39).

Table No. 5.39 Current land use within the area of influence of the project

Current usage	Type of current use	Symbol	Area (Ha)
Agricultural	Permanent, semi-permanent and intensive crops	CSPI	11,2
Livestock	intensive and semi-intensive grazing	PIS	93,1
Forest	Production	Pd	0,04
	Protection	Pt	70,1
Conservation	Protective forest	Fp	176,6
	Water resources	Rh	152,4
	Recovery	Rc	14,9
Industrial	Industrial or commercial areas	Zic	4,5
Residential	Settlement	As	2,0
	Populated center	Cp	74,7

Source: Aqua & Terra Consultores Asociados S.A.S, 2015.

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In the El Canal settlement, only the housing constructions are identified; no uses associated with agriculture or livestock are reported. This area is considered high risk for the settled population because it is a highly flooded area and it does not show potential uses associated with agricultural activities.

Productive and technological processes

Nueva Colonia township shows a marked trend of goods and services exchange with the head of the Municipality of Apartadó. They are located in the landscape unit Banana and plantain alluvial fan.

It is important to note that due to its proximity to the banana producing farms, Nueva Colonia has had a very rapid population dynamic and development, which is combined with the economic activity developed by the inhabitants of the township.

Nueva Colonia township offers services of commerce and basic provisioning, in addition it represents the node of link with the regional road network for the transport towards the municipal administrative center (Turbo).



Four (3) sectors were identified, according to the level of importance.

In first place is the agricultural part. Mostly made up of banana plantations. Its production is technified and the hiring of local hand or foreigners is mainly used in the area of Córdoba.

Currently, the port infrastructure of Urabá has as an exclusive function to meet the needs of the banana industry, in a simple way by means of transfer, ship, barge and jetty, it has two facilities, one in zungo and the other one in Nueva Colonia⁹⁸. For the operation of the ports, barges are used with the capacity to transport between 4 and 12 containers and loading equipment with capacity to handle quantities between 10 and 30 tons annually.

The company BANACOL has a plastic bag production plant located in Nueva Colonia. Additionally, ropes are made (they are used to tie the plastic bags to the banana and plantain bunch).

Characterization of the labor market

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Nueva Colonia currently has different Job Creation Companies, among which are Probán, Banadex, Uniban and Banacol; which are banana and plantain exporting organizations; There are also cattle ranches and banana plantation plots that are also sources of employment for Nueva Colonia township⁹⁹.

According to the information gathered in the field, the economically active population is basically composed of young people between 15 and 29 years old, who suffer from the rigor of the economic cycles of the municipality and especially the dependence on monoculture. Commercial activity has become an economic option but with low income, they can be economically classified as a situation of informality to be low quality jobs, low income and no social security.

On its official website, the Banana Association of Colombia (Augura) reports figures that show the importance of the sector for the economy of Urabá, where as of June 2012 there were 35,000 ha in production, in addition to generating 24 thousand direct jobs and 72 thousand indirect jobs, to annually export 72 million boxes of bananas and to employ more than 3,000 people from the subregion, in their vertical integration processes (factories producing boxes, seals, plastics, shipyards, fumigation services). Its importance is not only local, but it transcends the national economy, which generates annual revenues of more than 576 million dollars, participating with 4% of Colombian exports and 35% of Antioquia's exports. The above is reaffirmed when according to Ramírez (2002) cited by (Center for Economic Research (CIE), 2007), 90% of the economy of the region depends on bananas and plantains for export¹⁰⁰.

- *Banana productive chain*

The banana production in Colombia began in the sixties, the commercial planting of Cavendish bananas begins in the region of Urabá in the department of Antioquia, becoming the main producing area at present.¹⁰¹

The producers are classified into small and large farmers, with a high dependence on international traders, who act as suppliers of inputs for agricultural production and distributors of fruit in international markets¹⁰². This product is cultivated to a great extent in the townships of Río Grande, Currulao, Nueva Colonia and El Tres.¹⁰³



⁹⁹ <http://ruralitoscunublam.blogspot.com.co/2010/10/nueva-colonia>

¹⁰⁰ Turbo Profile pag. 67

¹⁰¹ ANA MARIA GOMEZ BERRIO. Transformation of bananas in Urabá: Past experiences, present initiatives and new opportunities for industrialization. Medellín. 2011. Pag. 16.

¹⁰² Ibid.

¹⁰³ MINISTRY OF LABOUR, Op, cit., p. 68.

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This Source of employment has created a cultural identity that is part of the municipality, the activity of *braceros*, people who are responsible for the shipment of bananas in international ships ¹⁰⁴ (See Photograph No. 5.25).



Photograph No. 5.25 Cultivation and commercialization of Banana

Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015

On the other hand, the plantain production also corresponds to the activity of farmers of medium social extraction, generating permanent income to the producing population, since it is a profitable alternative. However, the production of this one, presents great technical difficulties by the low productivity and quality of the plantain.



The production of plantain, of which approximately 12,000 ha, makes Turbo the main producer of the department¹⁰⁵. Although traditionally the plantain has been the main activity of the municipality, as a result of revaluation, which generates the current crisis through which this activity is happening, has been dabbling in the diversification of products such as cocoa, cassava (which has been traditional), corn, rubber, forestry and avocado.

- *Production Banana cultivation*

The banana production process consists of several stages, starting with the sowing or establishment of the crop, and ending with the packaging for marketing to international markets.

¹⁰⁴ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 477.

¹⁰⁵ MINISTRY OF LABOUR, Op, cit., p. 68.

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Export banana production process

Source: ANA MARIA GOMEZ BERRIO. Transformation of bananas in Urabá 2006

• *Transportation*

The fruit arrives in the Nueva Colonia Jetty, where it is placed in slabs or bongos, which are pulled by a tugboat through canals and the Gulf of Urabá where the cargo ships are anchored to the cargo.

The banana ships are light, fast and highly automated cargo ships, with controlled atmosphere cellars (temperature and air renewal) to prevent fruit ripening by heat, CO₂ concentration and ethylene. Conventional container ships are also used, with containers being specially equipped with temperature and ventilation control devices; and they are loaded directly into the packing plants of the farms, with better space efficiency¹⁰⁶.

• *Organization*

The operation of a banana farm is done in a single shift, from 6:00 a.m. to 4:30 p.m. when their workers arrive and depart respectfully to the packing house and the crop, in transport hired by the company. Its administrative areas operate from Monday to Friday in the so-called office hours (8:00 am to 6:00 pm), and thanks to the incorporation of information technologies (online systems) and communication

¹⁰⁶ Ibid.

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(internet and mobile telephony), banana companies to coordinate their functions more easily, overcoming distances and increasing their operational efficiency¹⁰⁷.

- *Commercialization*

The activities developed by the marketers by virtue of their corporate purpose are vertically integrated from the production, either in own crops or by independent farmers associated with them, until the commercialization of the fresh fruit. Some of them also have cardboard factories, polyethylene and polypropylene factories, warehouses of supplies, specialized services companies in: aerial fumigation for the control of black Sigatoka, integral management of fluvial and onshore transport, as well as the marketing infrastructure abroad for the direct distribution of the fruit in the destination countries¹⁰⁸.

Commercial and business sector present in the Minor Onshore Unit of Nueva Colonia

Table No. 5.40 presents the information related to commercial establishments, companies, and industries engaged in different activities, which are present in Nueva Colonia township

Table No. 5.40 Commercial establishments and companies present in Nueva Colonia township.



ECONOMIC ACTIVITY	NAME OR SOCIAL REASON	OCCUPIED PERSONAL AMOUNT
Agricultural production	COMERCIALIZAR SERRANO	1
	MIRYAN AMPARO BANANERA	8
	UNISERCOL E.U.	10
	AGROSERVICIOS BANANAL S.A.S.	16
	TRIPLEX Y MADERAS CENTRAL DEL DARIEN S.A.S.	15
	ACUAMAR HERRERA S.A.S.	1
Agroindustry	PANADERIA REAL CENTRAL	0
	DISTRIBUIDORA DE PURINA SANTEO	3
Manufacturing of Industrial Products	CREACIONES Y STILO CRISTINA	1
	DISTRIBUIDORA DE BOLSOS EL POTRO SPORT	5
	PLASTIDORIA	2
	CAFETERIA LO MEJOR DE ANY	2

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

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Fuel commercialization	EDS BAHIA COLOMBIA	0
	TURBO TANK TERMINAL	0
	SERVICENTRO PROXXON NUEVA COLONIA	3
Commercialization of auto parts	MOTO RACING PITS S.A.S. EN LIQUIDACION	1
	MOTO MERCE	1
Commerce	ASERRADERO YAGANES	3
	MISCELANEA LA ESQUINA	1
	GRANERO ANDRES DAVID	2
	GRANERO EL INTERCAMBIO	2
	MICROMERCADO NEGRETE RAMOS	2
	TIENDA BACHUE DE NUEVA COLONIA	1
	KIOSCO EL SARZAL LOS LAURELES	1
	AUTOSERVICIO EL PROGRESO NUEVA COLONIA	3
	AUTOSERVICIO MERKOSTO NUEVA COLONIA	9
	TIENDA LUCAJU	1
	AUTOSERVICIO MERKAHORRO SANTUARIANO	4
	TIENDA YEISO BORJA	0
	TIENDA LA ESQUINA DON CESAR	0
	TIENDA NEGRETE RAMOS	3
	GRANERO SURTITODO CARPAL	0
	TIENDA LO MEJOR DE MARSELL	1
	GRANERO SAN SEBAST GARCIA	0
	AUTOSERVICIO EL REFUGIO DE SEBAS	1
	GRANERO ZULUAGA VERTEL	1
	TIENDA DANNA Y LUCIANA	1
	CACHARRERIA BLANQUITA	2
	VARIEDADES EL PUERTO DE COLONIA	0
	VARIEDADES YURIMER	1
	VARIEDADES DIOS ES ABUNDANCIA	1
	TIENDA TIERRA DESEABLE DE ALBEIRO	2
	VARIEDADES EMILIO Y AMANDA	1
	MUEBLES VIJAY	1
	LACTEOS JOMIPEÑA	2
	CARNICERIA LA CHOCUANITA DE RIOS	2
	CARNES FRIAS LA ESPERANZA EN DIOS PINO	0
	CARNICERIA HERNANDEZ #3	3
	DISTRIBUCIONES ARLENYS	1
	DEPOSITO SANTY LAY	1
	VARIEDADES MARVI COLOMBIA	2



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	PINTURAS Y MATERIALES LA COLOMBIA DE NUEVA COLONIA	5
	FERRETERIA EL FARO SU ALIADO PARA LA CONSTRUCCION	2
	AGROCOLONIA	0
	PAPELERIA Y VARIEDADES MERKOSTO MARCELA	3
	VARIEDADES ANDRES DANILO	2
	TIENDA DE BELLEZA WAOR	2
	ALMACEN DE COMPRAFOR SALE Y ESTANQUILLO LA BOVEDA ITALIANA	1
	VARIEDADES CARIS Y LILI	1
Storage Services	BANAGRICOLA S.A.	0
Docking services	PUERTO BAHIA COLOMBIA DE URABÁ S.A.	0
	SOCIEDAD PORTUARIA DE ANTIOQUIA S.A.	1
Services	FOTO SUPERLUZ	1
	SALA DE BELLEZA YABEDI'S	1
	SAN NICOLAS CASA DE FUNERALES NUEVA COLONIA	2
	LAS DELICIAS DE LINA MARCELA	0
	GALLERA Y CANCHA DE TEJO LOS CAFU	
	SALA DE BELLEZA YABEDI'S	1
	SAN NICOLAS CASA DE FUNERALES NUEVA COLONIA	2
	LICORES ELIBREY	1
Telecommunications	MINI CIBER ANY	2
Rentals	ACADEMIA DE BILLARES EUROPA PORTILLO	2
Medical services	ORTHOHAND S.A.S. NUEVA COLONIA	4
Maintenance services	NEW FORMCELL HMV	1
	TALLER CICLO SPORT	1
	BICICLETAS PEDROZA	1

Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015. With information from Turbo Chamber of Commerce, 2015

Economically Active Population (PEA) Minor Onshore units

In the Minor Onshore Unit of Nueva Colonia, the economically active population is low and is responsible for a significant percentage of the economically dependent population (minors and older adults). This relationship is typical of regions that have a population pyramid with deficiencies in the age groups of 20 to 50 years, which in turn are presented by migrations in search of safety or better work opportunities and life validity.

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La población económicamente activa (PEA) del El Canal settlement, está representada en el 42,1% de la población; sin embargo, se evidencia que es una población con muy bajo nivel educativo, encontrando una escolaridad máxima hasta la secundaria Esta situación no permite el fácil acceso a mercados laborales cualificados en la zona, fomentando el trabajo informal desarrollado por el 77% del PEA (28 personas).

The economic activities that are developed to a greater extent, are related to fishing activities exercised by 44% of the PEA, increasing this percentage, when other activities carried out sporadically do not present demand, such as masonry, day laborer work, various trades, among others.

Most families receive subsidies for both children and older adults, although the above cannot meet their basic needs.

Port Activity



In the present section, the activities associated with the port operation that takes place in the area are described:

- *International load:*

It is managed in two types of vessels, high line or large tonnage that are the ones that bring inputs for banana production and in turn transport all the agricultural products that are produced in the Urabá area to other places in the world (United States, Europe, Central America, Asia etc.). The other type of vessels is smaller which only carry international traffic bringing goods from the Port of Coco Solo, Panama. For the maneuver of loading and unloading of international vessels depending on the loads transported mentioned above, the means used are different.

– **High draft vessels**

Once the ship arrives at the Port, it must anchor in the pilots area, an area that is demarcated in the letter of the Gulf of Urabá, waiting for the official visit of the onshore authority (Harbor Master's Office), in the company of onshore agents and other control entities (DAS, ICA, DIAN). After the visit, if it does not present any novelty, is approached by a Pilot of those operating in the area who carries the ship to the loading area, in this area the ship anchors to start the maneuvers of loading and unloading. The Cargo (Banana and plantain) is packed in cardboard boxes in Pallett and in Container, brought from the wharves of the different banana companies located in the channels of Zungo and Nueva Colonia, in bongos pulled

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by tugboats to the cargo area in front of the mouth of the Leon River in winter time, which is at an approximate distance between 4 and 7 nautical miles depending on the pier, or the loading area in front of the Leoncito River in summer, which is at an approximate distance of 8 and 13 nautical miles, the same procedure is carried out for the unloading of supplies, which on the contrary are taken to the different wharves of the Banana Companies.

Vessels that make Turbo Coco Solo Turbo Route: these vessels are usually Colombian flag, once they arrive at the port dock at the coast guard station waiting for the official visit, not present any news later anchoring in front to this dock to start the unloading maneuver, which is done through wooden boats with outboard motors, which are responsible for carrying the goods to land to be distributed in the different warehouses.

- *National load*



This cargo is mobilized by three types of Colombian flag vessels, the great majority with tonnages below 200 GRT, due to this and the cargo they carry, as well as their loading and unloading system and the different port infrastructures used, for better Understanding the type of maneuver performed by such vessels in the port of Turbo and the cargo that they transport including their ports are individually described.

- *Motonaves con tonelajes inferiores a 200 TRB:*

These boats transport general cargo such as: (Food, wood, cement, fertilizer, coconut, etc.), some navigate within the same jurisdiction and the others are coming from the ports of Cartagena, mainly Barranquilla. The procedure upon arrival at the port is as follows:

The boats that come from the town of Sapzurro, berth at the dock of the coastguard station, waiting for the official visit of the Harbor Master, once it is practiced proceed to the Waffle pier where the unloading maneuver is performed, this is done with workers, who pack the product in bags and then it is taken to the trucks.

Within this type of ships there is a large amount usually built of wood, which bring cargo from the ports of Cartagena and Barranquilla such as: fertilizers, cement, sugar and food in general, these at the time of arrival dock or anchor in front of the pier of the coastguard station, they are immediately made the official visit of the onshore authority, when they bring fertilizers and / or cement they are unloaded at the wharves of the different banana companies that are located in the Leon River on the Zungo canals and Nueva Colonia, this maneuver is carried out with coterros who carry the cargo directly from the boat to the trucks that later take it to the different

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wineries. When the boat brings food they are unloaded, in the dock El Waffle, doing the same maneuver of unloading that the previous ones, usually they are the ships of minor tonnage. Later these boats go towards the Atrato River, where they are loaded with wood to take it to the Port of Cartagena.

- *Tank ships*

The tonnage of these motorboats is higher than 200 GRT, which transport fuel from Cartagena and Coveñas to this port, arriving directly at the docks of ESSO and MOBIL, after the official visit is made by the authority onshore, they proceed to perform the discharge maneuver, prior appointment of a Pollution inspector who will verify that the maneuver is carried out with all the measures of the case to avoid anomalies that lead to a spill, this inspector must remain throughout the unloading maneuver; which is done by means of hoses from the ship, which are connected to the conduits of the dock that finally take the material to the different storage tanks.

La maniobra de cargue es la siguiente: Las tucas o trozas de madera son llevadas desde su sitio de corte en el río hasta la zona donde se fondea el buque y luego son llevados al buque mediante las plumas del buque o grúas.

- *Shipping companies*



Isabella Shipping: Shipping company founded by the UNIBAN trader in 1992, in 1994 becomes VOCC to offer the ocean freight service between the United States and Colombia of raw materials, machinery and spare parts for industrial development.

Provides the shipping and logistics service of export and import merchandise for industry and trade between the United States, Costa Rica and Colombia.

Artisanal fishing in the smaller Onshore units

For the collection of specific information on artisanal fishing, initial contact was made with personnel from the National Aquaculture and Fisheries Authority - AUNAP - to access information regarding fishing activities in the area. To date, AUNAP does not have primary information collected in the field for the area targeted by the project. The only information reported was the register of fishermen and the database of existing fishery organizations.

It should be noted that in addition to sharing the database of fishermen, the National Authority of Aquaculture and Fisheries - AUNAP, was attentive to participate in the activities scheduled for the collection of primary information.

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The photographs show the accompaniment of the AUNAP officer with Ricardo Lozano, Araujo Ibarra Audit delegate. (See Photograph No. 5.41).



Photograph No. 5.26 Attention and accompaniment of the AUNAP and audit in the fishing effort activities

Source: Made By Aqua & Terra consultores Asociados S.A.S, 2015



For the analysis of the fishing activity in the area, a fishing effort format adjusted to the requirements of the study was used. (5.3.3). In this format, the data required by the terms of reference relating to the characterization of the artisanal fishing activity were registered.

For the correct characterization of the fishing activity in the area, two activities were carried out within the framework of the socioeconomic characterization, the monitoring of the artisanal fishing activity and the georeferencing of vessels in the area of offshore influence of the project.

- *Monitoring of the artisanal fishing activity in the Minor Onshore units*

In order to identify the presence of fishermen in the study area (dump area and platform area), geo-referencing sessions were conducted in the area, for 15 days and sometimes with the supervision of the auditing and AUNAP.

Artisanal fishing is developed in a traditional way without technological tools that allow more productive tasks for the fishing sector; artisanal fisheries, although they manage resource surpluses, are generally not of the best quality and therefore their marketing chains are not very broad.

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On the other hand, subsistence fishing is also carried out in an artisanal way, although the resource is used exclusively for self-consumption, with the purpose of satisfying part of the basic food needs of the fisherman's family unit.

It is necessary to highlight that, the fishermen identification exercise and its characterization is complex, due to the dynamics that occur within the activity itself (temporality of the activity and population).



Fishermen of different characteristics were found in the area, such as:

- Artisanal subsistence fishermen who carry out their activity in a permanent and traditional way, with rudimentary elements; the resource obtained is only for self-consumption.
- Permanent artisanal fishermen who depend on the activity. They allocate the little surplus of fishing resource obtained, to be commercialized informally in the landing areas or sectors of their community, they are usually fishermen who perform short tasks.
- Permanent artisanal fishermen who have motor boats, sell the product through intermediaries, they also sell their product in the landing areas. To obtain the resource, they carry out fishing activities of up to 3 days, going out to the open sea where the resource is more abundant and of better quality.
- Occasional fishermen who carry out fishing activity in alternation with other economic activities. They do not depend on fishing, they can generate surplus product traded informally in the sectors and landing areas.
- Fishermen who use the study area as a transit or transit area and develop fishing activity in the open sea or where diverse ecosystems are found and the fishing resource is of better quality.

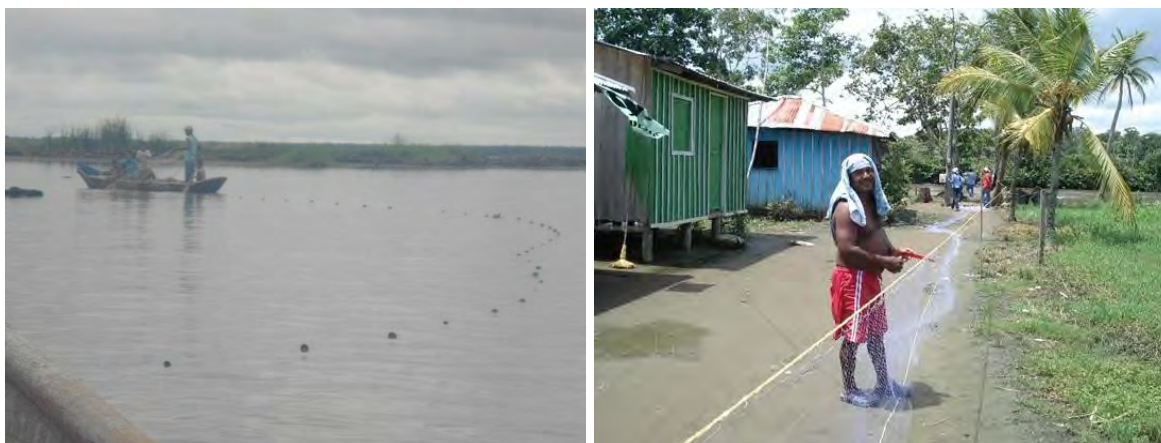
Artisanal fishing in high season can generate some surpluses that are commercialized on a very low scale, in which its dynamics are given by the inclusion, mainly of traditional fishing gear, use of smaller vessels, weak chains of preservation and commercialization of the fishing resource and poorly organized community organization structures.

– Fishing gear

Fishing with gillnet or trammel net: It consists of enclosing the fish with a net held by two cables: the one on the upper part carries floats and the other on the other side a lead ballast, which allows to submerge it until reaching the bottom. When

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using this method of enclosing they use two techniques, the first one is the enclosing and as the name implies it is to throw the trammel by making a circumference to catch the fish that have remained in the area of the circumference. The estimated time to collect the net is from 15 to 30 minutes approximately, therefore the permanence of the fisherman with this technique is quite varied, since they travel different sites in the same day. The other technique is the draft, where the trammel is normally thrown and left in the area of about 4 to 6 hours (Photograph No. 5.42).





Photograph No. 5.27 Enclosing and trammel system Made By a fisherman from El Canal.

Source: Made By Aqua & Terra Consultores Asociados S.A.S, 2015.

The line of hand or string: This art is considered one of the oldest, traditional and most environmentally friendly. It is generally used by more adult fishermen who consider fishing not only as an economic activity, but as an activity that represents the culture and tradition of a specific community. Because it is a selective fishing gear¹⁰⁹, it is considered to have less impact on the existing fish resource, since it allows the capture of larger fish. In Photograph No. 5.43, the necessary elements are shown for the development of a fishing line with a hand line or hook; the Figure show the different sizes of hooks depending on the size of fish that will be captured.

¹⁰⁹ The selective fishing gear allows to choose the size of the fish that are caught, for the case of the hand line, the size of the hook will allow the capture of smaller or larger specimens.

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Photograph No. 5.28 Hooks used in hand line fishing gear

Source: Made By Aqua & Terra Consultores Asociados S.A.S. 2015

This art, consists of a "lead" bar in which the nylon is tied at one end with the purpose of giving stability and later, the hooks are tied. The fisherman uses different types of bait to catch different types of fish, in this case live anchovies and sable are used, to fish shad, the size and type of catch depend on the size of the hooks. This type of fishermen was found 4Km from the mouth of the Leon River.

Harpoon and Arrow: Involves a fishing instrument formed by a long bar in one of whose ends has an iron tip with barbs turned backwards so that they make prey after getting stuck.

This type of fishing is carried out at night and absolute silence in the work is of utmost importance, for this reason the fishermen who have the rowing boats are those who use this technique more frequently. It consists of observing the fish with an explorer (flashlight), pointing with the arrow to the fish and catching them. (See Photograph No. 5.44).



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Photograph No. 5.29 Arrow for fishing.

Source: Made By Aqua & Terra Consultores Asociados S.A.S.2015

The casting net: is a cone-shaped net that is launched to fall into a specific area, which is operated by a single person in smaller vessels, in which the efficiency of fishing depends on the fisherman's knowledge about the distribution of the fishing resource and its ability to cast the cast net so that it forms a perfect circle on the surface of the water. The casting, depending on the size of its eye, will allow the capture of larger or smaller fish; The larger the eye of the casting net, the larger the captured specimen will be. The big eye of the casting net will allow the output of smaller specimens of the network. The casting net is used especially for shrimp fishing. (Photograph No. 5.45).

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Photograph No. 5.30 Use of the casting net. Fishermen of the Minor Onshore unit of Nueva Colonia



Source: Made by Aqua &Terra Consultores Asociados S.A.S. 2015

Palangre: Also known as tola, it is a long string from which hooks are attached at their ends, this is left from 4 to 6 hours approximately. (See Photograph No. 5.46).



Photograph No. 5.31 Palangre fishing.

Source: Made by Aqua &Terra Consultores Asociados S.A.S. 2015

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Commercialization

The commercialization of the resource product of artisanal fishing depends on the quality, size and volume of the captured resource, the inputs for the development of the activity that guarantee the preservation of the product, the supply and demand of the same, the levels of intermediation in the marketing chain and the levels of organization of the communities.

The most common species in the area were the Ctenoluciidae, Grouper, Bonefish, Sea Bass, Anchovy, Oligoplites saurus (in Spanish Leatherjacket fish), horse mackerel, Barracuda, Casabe. The species of greater size identified are the Zable and the bearded one, since individuals of 50 and more cms were reported. Species such as bass and anchovy that are highly commercialized reach sizes between 30 and 40 cms. (See Photograph No. 5.47).



El Waffle dock





Nueva Colonia dock

Photograph No. 5.32 Places of commercialization of the fishing resource
Source Made By Aqua &Terra Consultores Asociados S.A.S. 2015

Generally, fishermen in the area carry out long fishing activities in remote areas to gain access to the fishing resource with the greatest commercial value.

When small surplus fishing resources are caught, they are marketed at the landing sites, where the captured fish is bought on a daily basis to be resold in local markets. The fishermen arrive at these collection centers at different times, depending on the captured resource since there are buyers who only dedicate themselves to the purchase of certain species.

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The chain of commercialization of the communities in this measure, depends mainly on the resource obtained in areas far from Bahía Colombia or in the estuarine zones of the delta of the León, Turbo and Atrato rivers (See Figure No. 5.20).



TRADE OF THE FISHING RESOURCE

- **Place of commercialization:** landing area (Nueva Colonia Dock, El Canal Settlement and other sectors in which the fishing population resides) Collection and sale centers (Waffle dock, restaurants and local market).
- **Type of consumer:** Fishing population, residents of contiguous sectors Nueva Colonia, people who are supplied by local markets, Tourists through restaurants and hotels.
- **Type of trade:** retail, per unit or kilo.
- **Sanitary conditions of the resource:** Cold chains are not usually available, the resource is sold once it arrives at the port.
- **Price:** ranges between \$ 3,000 and \$ 8,000 / Kg depending on the species and the fishing season. The species of major commercialization are the snook and the mojarra that sells at a value of \$ 12,000 COP.

Figure No. 5.20 Marketing of the fishing resource in the landing areas of Nueva Colonia Canal

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

In general terms, due to the characteristics mentioned above, it can be concluded that the development of fishing by communities takes place in areas near the mouths of rivers and the open sea, because in Bahía Colombia and especially the intervened areas with the project, port operations are currently being developed.

For this reason, anchoring zones and access channels for larger vessels are established. In these areas fishing activity is restricted due to the danger represented by the development of the artisanal fishing activity, alternating with the activities of anchoring and traffic of larger vessels.

– **Associations of fishermen identified in the landing area**

In the study area, an association of fishermen, Association of Artisanal Fishermen of Nueva Colonia - APEANCO - that are part of the majority of the Nueva Colonia township, is identified. In the El Canal settlement, although a large number of fishermen are identified, to date it does not have a legally constituted association. Some of the fishermen resident in the El Canal settlement are part of the fishermen's association of Nueva Colonia (See Table No. 5.40).



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Table No. 5.41 Fishermen's associations of Nueva Colonia.

Township	Organization name's	Representative	Branch	Nº of Vessels	Number of affiliates
Nueva Colonia	Nueva Colonia's Association of artisanal fishermen	Miguel Francisco Díaz Zúñiga 3105309892	At this time, the association does not have a headquarters for the development of its activities.	La asociación de pescadores no cuenta con embarcaciones The fishermen's association does not have vessels	The fishermen's association has 35 members

Source: Made By Aqua & Terra Consultores Asociados S.A.S.2015

The following is the result of the fishing effort activity carried out in the community of Nueva Colonia and the El Canal settlement in the period between July 1 to July 6 and July 20 to July 25, 2015. The lifting of the information was carried out according to the Fishing Effort Units¹¹⁰ (PEU) identified.



Fishing effort Period

According to the agreed methodology, the fishing sampling days were carried out in the loading and unloading area identified in Nueva Colonia between July 1 to 6 and July 20 to 25, 2015, with averages of 12 hours a day in the disembark, between 5:00 in the morning and 5:00 in the afternoon. Journey in which 120 Units of Fishing Effort were identified -UEP- (See Table No. 5.41)

Table No. 5.42 Fishing effort / PEU sampling period in the embarkation and disembarkation zones of the Nueva Colonia channel and the El Canal settlement.

Date	Day	Nº fishing effort units/day
01/07/2015	Wednesday	19
02/07/2015	Thursday	9
03/07/2015	Friday	9
04/07/2015	Saturday	6
05/07/2015	Sunday	1
06/07/2015	Monday	9
Total		53
20/07/2015	Monday	17
21/07/2015	Tuesday	17
22/07/2015	Wednesday	11
23/07/2015	Thursday	No information was reported due to the absence of fishermen
24/07/2015	Friday	15
25/07/2015	Saturday	7
Total		67

¹¹⁰ One unit of fishing effort is composed of vessel, fisherman, fishing gear, catch resource and fishing effort

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Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015



According to the Table above, for the first period of fishing effort the highest number of PEUs were identified in the sampling day held on Wednesday, July 1 (19 UEP), while the day with the lowest sighting of work was on Sunday, July 5 with 1 reported PEU. This is because it was a Sunday on which fishermen generally rest.

For the second day of fishing effort, the largest number of registered PEUs were identified on the day held on July 20 and 21 (17 PEU), while the day with the lowest sighting of work was recorded on Saturday, July 25 with 7 UEP reported. On average per day, 13.4 PEU were surveyed.

– **Place of information gathering**

The gathering of information was carried out in jetty areas, known as collection sites. Initially, a day of fishing effort was carried out in the area of the El Canal settlement, but because the fishermen of El Canal disembarked in the Nueva Colonia Jetty, the data collection focused on this place known as the port of Nueva Colonia as it can be observed (See Photograph No. 5.48).



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Photograph No. 5.33 Nueva Colonia Jetty



Source: Made By Aqua & Terra Consultores Asociados S.A.S 2015

— Fishermen surveyed



In Table No. 5.42, the fishermen who were surveyed and the name of the vessels are identified, based on the name of the registered vessels. In total, 82 fishermen were surveyed who carried out 53 fishing operations in the period from July 1 to 6, and 67 fishing operations in the period from July 20 to 25, 2015 for a total of 120 fishing operations.

Table No. 5.43 Fishermen surveyed in the landing area in the Canal Nueva Colonia

N°	Fisherman name	Vessel Name
1	Adalberto Sánchez	Juancho Pez
2	Agustín Mejía	La Perla
3	Alfredo Castro Ceren	Brisas del Mar
4	Alfredo Mobilla Acevedo	No name, it is no registered.
5	Alid Hernández	No name
6	Anthony Manuel Velásquez Díaz	María José
7	Armando Chica Maya	No name, it is no registered.
8	Augusto Valdelamar	Blanca Isabel
9	Benito Núñez Sinisterra	Celestial
10	Carlos Andrés Gómez	Eduardoño
11	Carlos Andrés López	El Tranquilo
12	Carlos Mario Pedroza	La Niña Natali
13	Celso Pérez	La Niña Natali
14	Celso Pérez	La consentida
15	Cristina Isabel Martínez	El Aventurero
16	Dagoberto Ruiz	La Familia
17	Darío José Ramos	La Bala
18	Darío Pedroza	Paola
19	Demetrio Manuel Sofan Cogollos	Niña Natali
20	Eder Ibáñez	No name, it is no registered.
21	Édison Barón	No name, it is no registered.

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N°	Fisherman name	Vessel Name
22	Eduardo Enrique Pacheco	Carmelita
23	Eduardo Silgado Castro	No name, it is no registered.
24	Eleodino Berrocal	Doña Rosa
25	Ernesto Avila	Doña Fisher
26	Evaristo Rodríguez Bolaños	Katy y Tali
27	Félix Enrique Chaverra	Paola
28	Ferney Díaz García	Sin Nombre
29	Francisco Castro	Brisas del Mar
30	Gualberto Hoyos de la Cruz	El Aventurero
31	Herminio Martínez	La Niña Materli
32	Hernán Carvajal	María José
33	Inocencio Beitar Cuesta	Paola
34	Jair Alberto Tordecilla	Génesis
35	Jair Blanco	Yurani
36	Jean Carlos Hernández	Yurani
37	Jhon Jader Cogollo	La Niña Natali
38	Jhonatan Flores Álvarez	La Niña Natali
39	Jhony Edilson Sandoval	No name
40	Johan Palacios	La Bala
41	Jorge Sotelo rojas	La niña Valentina
42	Jorge Sotelo Torreglosa	La niña Valentina
43	José Arley Palacio	Mano de Dios
44	José Gabriel Negrete	Marly
45	José Luis RoGrouper	Costa Mar
46	Juan Hernández	Yurani
47	Juan Porras Barragán	La Lida
48	Juan Ramón Sáenz Correa	Los Cucas
49	Levy Hernández	Sin Nombre
50	Lucrecio Palacio	Doña Fisher
51	Luis Fernando Perea	Niña Natali
52	Luis Fernando Rodríguez	Doña Iris
53	Manuel Delgado	Mar Adentro
54	Manuel Mejía Delgado	Mar Adentro
55	Manuel Muñoz	No name, but registered.
56	Marley Serna	Doña Marley
57	Miguel Francisco Díaz Zúñiga	Génesis
58	Miguel Quintana	Blanca Isabel
59	Moisés Ramos Herrera	No name, it is no registered.
60	Onevi María Díaz	María José
61	Oscar Darío Núñez Cordero	Damaris
62	Pedro Julio Quintero	Los Dos Hermanos
63	Plinio Palacio Moreno	Mano de Dios
64	Rafael Ortega	Lina Marcela
65	Robinson Barón	Génesis
66	Robinson Betancur	Los dos hermanos
67	Sergio Jacobo	La Chepa
68	Somer Potes Delgado	No name, it is no registered.

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N°	Fisherman name	Vessel Name
69	Urbano José Ballesta	No name, it is no registered.
70	Valentín Murray	No name
71	Víctor Manuel Figueroa	Niña Kate
72	Waldisney Ospina	No name, it is no registered.
73	Wilmer Rentería	Mano de Dios
74	Wilson Herazmo	No name, it is no registered.
75	Yamid Gulfo Hernández	Los Cucas
76	Florentino Berrio	No name, it is no registered.
77	Francisco Mejía	No name, it is no registered.
78	Francisco Paz Bolívar	No name, it is no registered.
79	Giovanni Mejía	No name, it is no registered.
80	Jehu Padilla	No name, it is no registered.
81	Selso Pérez	No name, it is no registered.
82	Luis RoGrouper	Costa Mar

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

Dependence on fishing activity

In response to the information gathered in the field, fishermen are reported who carry out other activities such as various trades, masonry, mototaxism, street vending. Some of them alternate their activities with trades in banana plantations near their places of habitation.

Of the 82 fishermen identified during the entire fishing day, 41 depend on fishing activity as the only economic activity that generates surpluses for the commercialization of the resource through informal marketing chains; in the same way, usually part of the fishing effort of the slaughter, is destined to self-consumption, being the fishing resources a product that guarantees the alimentary security of said population (Table No. 5.43).

Table No. 5.44 Dependence on the artisanal fishing activity of the fishermen surveyed.



fisherman's Full name	Use of the capture	Sales place	Other activities carried out
Adalberto Sánchez	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Agustín Mejía	For Sale: 100%	Nueva Colonia Jetty	Dependent
Alfredo Castro	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Alfredo Mobilla	For Sale: 98% Self-consumption 2%	Nueva Colonia Jetty	Dependent

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fisherman's Full name	Use of the capture	Sales place	Other activities carried out
Alid Hernandez	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Antony Manuel Velasquez Díaz (Pescador #1)	For Sale: 95% Self-consumption 5%	Nueva Colonia Jetty	Dependent
Armando Chica (For Sale: 100%	Nueva Colonia Jetty	Dependent
Augusto Valderrama	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Benito Núñez Sinisterra	For Sale: 97% Self-consumption: 3%	Nueva Colonia Jetty	Development of alternative activities
Carlos Andrés Gómez	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Carlos Andrés López	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Carlos Mario Pedroza	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Celso Pérez (For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Cristina Isabel Martínez	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Dagoberto Ruiz	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Darío José Ramos	For Sale: 99% Self-consumption 1%	Nueva Colonia Jetty	Development of alternative activities
Darío Pedroza	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Demetrio Manuel Collo	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Eder Ibáñez	For Sale: 100%	Nueva Colonia Jetty	Dependent
Édison Barón	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Eduardo Enrique Pacheco	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Development of alternative activities
Eduardo Silgado Castro	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Eleodino Berrocal	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities

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fisherman's Full name	Use of the capture	Sales place	Other activities carried out
Ernesto Avila	For Sale: 98% Self-consumption 2%	Dependent	Dependent
Evaristo Rodriguez Bolaños	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Félix Enrique Chaverra	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Ferney Díaz García	For Sale: 100%	Nueva Colonia Jetty	Dependent
Florentino Berrio	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Francisco Castro	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Francisco Mejía	For Sale 99% Self-consumption 1%	Nueva Colonia Jetty	Dependent
Francisco Paz Bolívar	For Sale: 99% Self-consumption: 1%	Nueva Colonia Jetty	Dependent
Giovanni Andrés León Tapias	For Sale: 90% Self-consumption: 10%	Jetty Sarabanda	Dependent
Gualberto Hoyos de la Cruz	For Sale: 100%	Nueva Colonia Jetty	Dependent
Herminio Martínez	For Sale: 100%	Nueva Colonia Jetty	Dependent
Hernán Carvajal	For Sale: 95% Self-consumption 5%	Nueva Colonia Jetty	Dependent
Inocencio Beitar Cuesta	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Jair Alberto Torecilla	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Dependent
Jair Blanco	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Jean Carlos Hernandez	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Jehu Padilla	For Sale: 100%	Nueva Colonia Jetty	Dependent
Jhojan Palacios	For Sale: 97% Self-consumption 3%	Nueva Colonia Jetty	Dependent
John Jader Cogollo	For Sale: 97% Self-consumption: 3%	Nueva Colonia Jetty	Development of alternative activities
Jonatán Flórez Álvarez	For Sale: 100%	Nueva Colonia Jetty	Dependent



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fisherman's Full name	Use of the capture	Sales place	Other activities carried out
Jhoni Édison Sandoval	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Development of alternative activities
Jorge Sotelo Rojas	For Sale: 100%	Nueva Colonia Jetty	Dependent
Jorge Sotelo Torreglosa	For Sale: 100%	Nueva Colonia Jetty	Dependent
José Arley Palacio	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
José Gabriel Negrete	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
José Luis RoGrouper	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Development of alternative activities %
Juan Hernandez	For Sale: 100%	Nueva Colonia Jetty	Dependent
Juan Porras Barragán	For Sale: 97% Self-consumption: 3%	Nueva Colonia Jetty	Development of alternative activities
Juan Ramón Sáenz Correa	For Sale: 100%	Nueva Colonia Jetty	Dependent
Juan Ramos	For Sale: 100%	Nueva Colonia Jetty	No dio autorización para tomar la ficha del esfuerzo pesquero
Levy Hernández	For Sale: 100%	Nueva Colonia Jetty	Dependent
Lucrecio Palacio	For Sale: 98% Self-consumption: 2%	Nueva Colonia Jetty	Development of alternative activities
Luis Fernando Perea	For Sale: 90% Self-consumption: 10%	Jetty Sarabanda	Dependent
Luis Fernando Rodríguez	For Sale: 100%	Nueva Colonia Jetty	Dependent
Manuel Delgado	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Dependent
Manuel Mejía Delgado	For Sale: 100%	Nueva Colonia Jetty	Dependent
Manuel Muñoz	For Sale: 98% Self-consumption: 2%	Nueva Colonia Jetty	Development of alternative activities %
Marly Serna	For Sale: 100%	Nueva Colonia Jetty	Ninguna
Miguel Francisco Díaz Zúñiga	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Miguel Quintana	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities

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fisherman's Full name	Use of the capture	Sales place	Other activities carried out
Moisés Ramos Herrera	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Development of alternative activities
Onevi Maria Díaz	For Sale: 100%	Nueva Colonia Jetty	Dependent
Oscar Darío Núñez Cordero	For Sale: 100%	Nueva Colonia Jetty	Dependent
Pedro Julio Quintero	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Plineo Palacio Moreno	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Rafael Ortega	For Sale: 100%	Nueva Colonia Jetty	Dependent
Robinson Barón	For Sale: 90% Self-consumption 10%	Nueva Colonia Jetty	Development of alternative activities
Robinson Betancur	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Development of alternative activities
Selso Pérez	For Sale: 90% Self-consumption: 10%	Jetty Sarabanda	Dependent
Sergio Jacobo	For Sale: 98% Self-consumption: 2%	Nueva Colonia Jetty	Dependent
Somer Potes Delgado	For Sale: 99% Self-consumption: 1%	Nueva Colonia Jetty	Dependent
Urbano José Ballesfa	For Sale: 100%	Nueva Colonia Jetty	Dependent
Valentín Murray	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Víctor Manuel Figueroa	For Sale: 100%	Nueva Colonia Jetty	Dependent
Waldisney Ospina	For Sale: 90% Self-consumption: 10%	Nueva Colonia Jetty	Dependent
Wilmer Rentería	For Sale: 100%	Nueva Colonia Jetty	Development of alternative activities
Wilson Herazo	For Sale: 70% Self-consumption: 30%	Nueva Colonia Jetty	Dependent
Yamid Gulfo Hernández	For Sale: 100%	Nueva Colonia Jetty	Dependent

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

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Fishing gear

Of the 120 fishing effort units identified in the two days of fishing, 108 PEU equivalent to their use for the fishing gillnet or trammel net, 2 PEUs were reported using the line of hand or hook and in the same way 2 used the harpoon, three used the longline. The fishing gears used are registered In Figure No. 5.21.

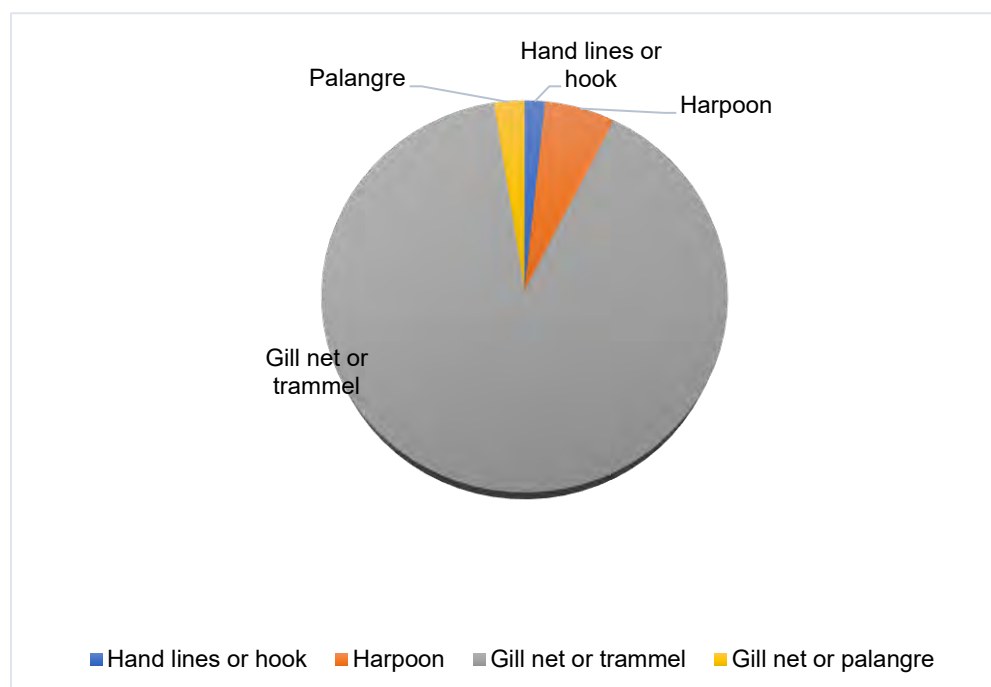


Figure No. 5.21 Fishing gear reported during the days of fishing effort in the Canal Nueva Colonia

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

Jetty and Landing area

Table No. 5.44 shows the Jetty and Landing areas reported by the surveyed PEUs.

It was evident that fishermen leave from Canals near their place of residence, but the only place for landing and commercialization is in Nueva Colonia, municipality of Turbo. (See Photograph No. 5.49 and Figure No. 5.23 Figure No. 5.22 Nueva Colonia Jetty)



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Table No. 5.45 Jetty and Landing area places of the identified Fishermen

Nº	Jetty	Landing Area
1	Nueva Colonia Jetty	Nueva Colonia Jetty
2	Zarabanda Jetty	
3	Puerto Girón	
4	El Canal settlement	
5	Punto Rojo settlement	

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015



Photograph No. 5.34 Jetty and Landing area places Nueva Colonia

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

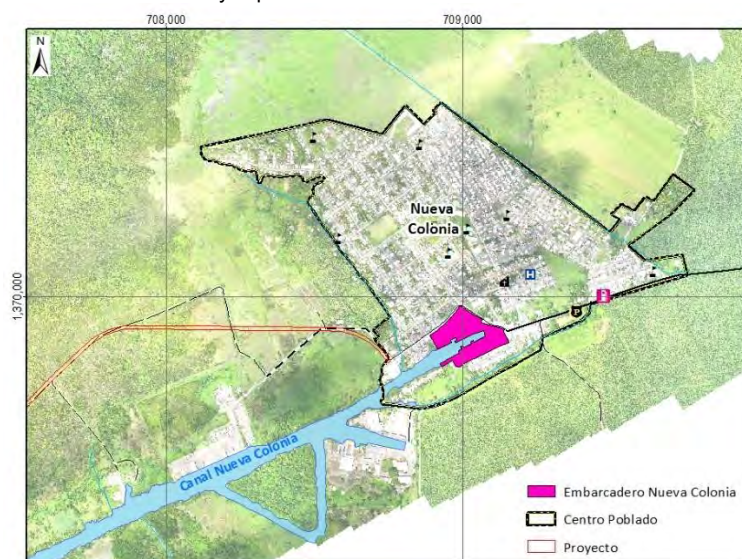




Figure No. 5.22 Nueva Colonia Jetty

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

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– Vessels use

The Vessels used for the development of the fishing activity in the area are closely linked to the fishing gear used. For the development of artisanal subsistence fishing, smaller vessels are generally used. Fishing operations are usually carried out by 1 or 2 fishermen.

The most used vessels are the shallops, boats (Rowboat or boat with motor), canoe and panga. Fishermen who work on boats with outboard motor prefer the fishing grounds located in the upper area of the Gulf of Urabá.

Of the vessels identified, the most frequent one in the study area are the shallops and boats. (See Photograph No. 5.50).



Rowboat

Shallop

Panga

Photograph No. 5.35 Fishing boats present in the area of offshore influence of the project
Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

It should be noted that some boats are not registered and do not always belong to the fisherman found in the area, as there are rental of these, for this reason some names of the boats were not reported. In Table No. 5.45 the vessels are reported.



Table No. 5.46 Type of vessels

Sampling period	Type of vessels			
	Shallop	Boat	Canoe	Total
Period 1	25	2	1	28
Period 2	24	3		27

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

– Fishing work schedules

The fishermen usually leave in groups of two (2) people to the tasks, which are usually done from 5:00 in the morning. The fishing operations carried out by the

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fishermen identified have an average duration of 2 and up to three days. Generally, the fishermen go out to perform their tasks between 5:00 a.m. at 7 a.m. in the morning, and also return in the morning hours, between 5 a.m. and 8 a.m.

In this way, fishermen who leave in the morning and return in the morning hours of the next day are registered, and there are groups of fishermen who complete longer fishing trips, lasting up to four days, where they make large trips by means of the use of boats with outboard motors (Table No. 5.46).

Table No. 5.47 Duration of fishing operations.

Period of fishing effort	Duration of the tasks				Total reported tasks (UEP)
	1 day	2 days	3 days	4 days	
From July 1 to 6, 2015	8	16	12	14	53
From July 20 to 25	14	25	21	7	67
Total	22	41	33	21	120

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

Based on the information reported, of the 120 reported fishing operations, 22 equivalent to 18.3% carried out their work in one day, 41 which is equivalent to 34.1%, 2 days were delayed, 33 fishing operations equivalent to 27,5% reported 3 days of slaughter and 21 tasks equivalent to 17.5% were carried out in 4 days. 3 units of fishing effort did not report information in this regard.

– Investment of fishing operations

The investment in the work, for the fishing units identified, corresponds to the gasoline consumed by each vessel; bait, ice, food for fishermen, boat rental. The cost of a fishing task depends on the type of vessel used, the fishing gear and the time of the task. Work is recorded in which the cost is \$ 5000 pesos. While for the tasks that can last 3 days the costs, according to information reported by the fishermen can amount to \$ 400,000 pesos depending on the fishing gear used.

The fishing investments made in the fishing operations vary depending on the fishing gear and duration of the fishing activity. In the fishing effort made, the following information was recorded (Table No. 5.47):



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Table No. 5.48 Investment for work and fishing gear during the days of fishing effort



Period of fishing effort	Number of reported tasks	Investment per task	Investment by fishing gear reported
From July 1 to 6, 2015	53	The investment per site varies between \$ 5,000 pesos and \$ 400,000 pesos depending on the time of the job	Gillnet / Trawl: 49 fishing operations were reported, which had an estimated investment between \$ 30,000 and \$ 280,000
			Harpoon: 2 fishing operations were reported, which had an investment of \$ 35,000 and \$ 60,000 pesos.
			Line of hand: 2 fishing operations were reported, which had an investment of \$ 200,000 and \$ 217,000 pesos.
From July 20 to 25	67	The investment per site varies between \$ 5,000 pesos and \$ 300,000 pesos depending on the time of the job	Gillnet / Trawl: 62 fishing operations were reported, which had an estimated investment between \$ 100,000 and \$ 230,000 pesos.
			Harpoon: 5 fishing operations were reported, which had an investment between \$ 14,000 and \$ 71,000 pesos.

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

— Fishing sampling days

During the days of fishing sampling, a total catch of 6,893 fish units or individuals with a total weight of 1439 kg was obtained, reaching an average per unit of fishing effort of 25.24 kg for the first fishing effort day (from 1 to July 7, 2015). The most representative species were anchovy, snook and seven hides.

For the second day of fishing effort a total catch of 9,878 fish units or individuals with a total weight of 2,537 kg was obtained, reaching an average per unit of fishing effort of 37.8 kg. The most representative species were the anchovy, the snook, the horse mackerel and the zable. (Photograph No. 5.51).

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Photograph No. 5.36 Day of fishing sampling in the Nueva Colonia Jetty

Source: Made By Aqua &Terra Consultores Asociados S.A.S 2015

Size ranges

Next, a size analysis of the most representative species collected during the development of the fishing effort activity is presented.

For this analysis, six average size measurements were defined (2 to 5 cm, 5.1 to 10 cm, 10.1 to 20 cm, 20.1 to 30 cm, 40.1 to 50 cm and greater than 50.1 cm). Next in

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Photograph No. 5.52, the exercise carried out for the collection of information is shown.



Photograph No. 5.37 Size registration in fishing sampling day in the landing area of Nueva Colonia

Source Made By Aqua &Terra Consultores Asociados S.A.S 2015

The most representative species (Anchovy, Bass, and Barbudo) were found within the range of 20 to 40 cm. The anchovy is the species with the highest amount of registered catch, with a total of 3138 individuals. It should be noted that this species is one of the most economical in the fishing trade (\$ 5,000 Kilo).

Secondly, we found 1413 units of snook. This species is one of the most desired by fishermen, due to its commercial value which is approximately \$ 10,000 per Kilo.

Considering the fishing gears identified and the total number of individuals, 593 catches (units) with harpoon of the bearded and snook species were reported. The most representative average size was from 5.1 to 10 cm followed by 20.1 to 30 cm (Table No. 5.48).



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Table No. 5.49 Fishing effort by species / size Harpoon fishing gear

FISHING AREA_HARPOON						
Scientific name	Common name	5,1 to 10 cm	10,1 to 20 cm	20,1 to 30 cm	30,1 to 40 cm	50 cm +
<i>Ariopsis sp.</i>	Bearded	0	50	0	0	0
<i>Centropomus sp.</i>	Bass	30	100	7	0	1
Total		355	7	131	70	30

Source: Made By Aqua &Terra Consultores Asociados S.A.S 2015

The use of the hand line, although not very representative, reports 9 different species captured for a total of 274 individuals. The most representative sizes were between the ranges of 30.1 to 40 cm, the anchored, the corbinata and the horse mackerel were the most abundant species (Table No. 5.49).

Table No. 5.50 Fishing effort by species / size Fishing gear Hand line



FISHING ART_LINE OF HAND						
Scientific name	Common Name	5,1 to 10 cm	10,1 to 20 cm	20,1 to 30 cm	30,1 to 40 cm	50 cm +
Sin dato	anchovy	0	0	30	50	0
<i>Ariopsis sp.</i>	Bearded	0	0	0	20	15
<i>Opistonema oglynum</i>	Black seabream	0	20	0	0	0
<i>Larimus sp.</i> O <i>Umbrina sp.</i> o <i>Pachirus sp.</i>	Corbinata	0	40	0	0	0
<i>Callinectes sapidus</i>	Crab	8	0	0	0	0
<i>Caranx hippos</i>	Mackerel	0	0	0	40	0
<i>Lutjanus sp.</i>	Snapper	0	10	10	10	0
<i>Centropomus sp.</i>	Bass	0	0	11	0	0
<i>Trichiurus sp.</i>	Zable	0	0	0	0	10
Total		8	70	51	120	25

Source: Made By Aqua &Terra Consultores Asociados S.A.S 2015



The largest number of individuals were captured using the gill net, considered a fishing gear that is not selective but more efficient when carrying out fishing effort days that require a surplus to be marketed (Table No. 5.50).

Table No. 5.51 Fishing effort by species / size Fishing gear Gill net

FISHING GEAR_GILL NETWORK								
scientific name	Common Name	2 to 5 cm	5,1 to 10 cm	10,1 to 20 cm	20,1 to 30 cm	30,1 to 40 cm	40,1 to 50 cm	50 cm +
<i>Strongylura sp.</i>	pike-characins	0	0	0	0	3	10	28
Sin dato	Anchovy	0	0	375	3014	1955	54	0

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FISHING GEAR_GILL NETWORK								
scientific name	Common Name	2 to 5 cm	5,1 to 10 cm	10,1 to 20 cm	20,1 to 30 cm	30,1 to 40 cm	40,1 to 50 cm	50 cm +
Sin dato	Bacalao	0	0	0	0	0	0	1
<i>Ariopsis sp.</i>	Bearded	0	0	31	1079	1108	112	0
<i>Prochilodus sp.</i>	Magdalena River prochilodus	0	0	0	0	7	0	0
Sin dato	Boquipompo	0	0	20	0	0	0	0
	White Shrimp	0	0	21	0	0	0	0
<i>Chloroscombrus Chysurus</i>	Cazabe	0	0	0	1	5	0	0
<i>Opisthonema oglynum</i>	Black seabream	0	300	100	120	0	0	0
<i>Caranx crysos</i>	Cojinúa	0	0	3	0	0	0	0
<i>Larimus sp.</i> <i>O Umbrina sp.</i> <i>Pachirus sp.</i>	Corbinata	0	40	644	795	149	5	0
<i>Ageneiosus pardalis</i>	Doncella	0	0	0	21	4	0	0
Sin dato	Dorotea	0	0	0	3	0	0	1
<i>Chaetostoma sp</i>	Guacuco	2	2	0	0	0	0	0
<i>Callinectes sapidus</i>	Crab	0	0	66	150	0	0	0
<i>Sphyræna sp.</i>	Juancho Juancho	0	0	1	0	4	0	0
<i>Caranx hippos</i>	Mackerel	0	0	68	182	1	0	21
<i>Mugil-lisa</i>	Lebranche	0	0	20	0	9	8	6
<i>Elops saurus</i>	Macabí	0	0	0	0	0	1	0
	Mayupa	0	0	0	6	33	1	31
<i>Epinephelus sp.</i>	Grouper	0	2	0	0	1	1	2
<i>Caquetaia kraussii</i>	Yellow Surfperch	0	0	3	179	38	1	0
<i>Gerres cinereus</i>	White Surfperch	0	0	0	4	0	0	0
	Moncholo	0	0	0	29	51	45	0

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FISHING GEAR_GILL NETWORK								
scientific name	Common Name	2 to 5 cm	5,1 to 10 cm	10,1 to 20 cm	20,1 to 30 cm	30,1 to 40 cm	40,1 to 50 cm	50 cm +
<i>Selene sp.</i>	Pampano	0	0	1	0	0	0	0
<i>Lutjanus sp.</i>	Snapper	0	0	10	60	16	3	0
<i>Sphyraena picudilla</i>	Picúa	0	0	0	4	15	0	0
	Poquiponpo	0	26	106	50	58	0	0
<i>Centropomus sp.</i>	Róbalo	0	0	215	1659	980	22	0
<i>Anchovia sp.o Harengula sp.</i>	Pilchard	0	90	130	65	0	0	0
	Barracuda	0	0	0	0	0	2	0
<i>Oligoplites saurus</i>	Leatherjacket fish	0	0	9	259	53	8	0
	Sábalo	0	0	0	1	36	0	0
<i>Trichiurus sp.</i>	Zable	0	0	0	0	30	25	994
Total		0	460	1823	7681	4556	298	1084



Source: Made By Aqua &Terra Consultores Asociados S.A.S 2015

Captured species

Then, Table No. 5.51 presents the record of the species captured during the fishing operations carried out by the fishermen who were monitored for fishing effort.

Table No. 5.52 Registration of species captured in the fishing sampling days in the landing area of Nueva Colonia

Common Name	Scientific Name
pike-characins	<i>Strongylura sp.</i>
Bearded	<i>Ariopsis sp.</i>
Magdalena River prochilodus	<i>Prochilodus sp.</i>
Bochipompo	Sin identificar
White Shrimp	<i>Litopenaeus vannamei</i>
Cazabito	<i>Chloroscombrus Chysurus</i>
Black seabream	<i>Opistonema oglynum</i>
Cojinúa	<i>Caranx crysos</i>
Corbinata	<i>Larimus sp. O Umbrina sp.o Pachiurus sp.</i>
Doncella	<i>Ageneiosus pardalis</i>
Dorotea	Sin Identificar
Guacuco	<i>Chaetostoma sp</i>
Crab	<i>Callinectes sapidus</i>
Mackerel	<i>Caranx hippos</i>

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Common Name	Scientific Name
Juancho	<i>Sphyraena sp.</i>
Lebranche	<i>Mugil liza</i>
Mayupa	<i>Gymnotus henni</i>
Grouper	<i>Epinephelus sp.</i>
Yellow Surfperch	<i>Caquetaia kraussii</i>
Moncholo	<i>Hoplias malabaricus</i>
Pampano	<i>Selene sp.</i>
Snapper	<i>Lutjanus sp.</i>
Picúa	<i>Sphyraena picudilla</i>
Poquipompo	<i>Sin Identificar</i>
Bass	<i>Centropomus sp.</i>
Pilchard	<i>Anchovia sp. o Harengula sp.</i>
Leatherjacket fish	<i>Oligoplites saurus</i>
Sable	<i>Trichiurus sp.</i>



Source: Made By Aqua & Terra Consultores Asociados S.A.S. 2015

– Places of capture

Fishing grounds and places

According to information reported by the AUNAP through a study carried out by INVEMAR, the fishing grounds that are located in areas near the area of influence of the project were identified. Of the present study, we only had access to the following image that shows the fishing grounds in Bahía Colombia.

Taking into account the information provided by the National Fisheries and Aquaculture Authority, the reference of the fishing grounds, the information reported in the days of fishing effort, as well as the information contained in the georeferencing of vessels in the area of influence of the project, it can be evidenced that the area of influence of the project, is used as zone of passage by the fishermen to carry out their fishing tasks in the delta of the rivers near Bahía Colombia, as well as the high parts of the bay towards the sea. This is how they report tasks that can last up to 4 days. In the following image, the fishing grounds identified by the INVEMAR are shown. (See Figure No. 5.23).

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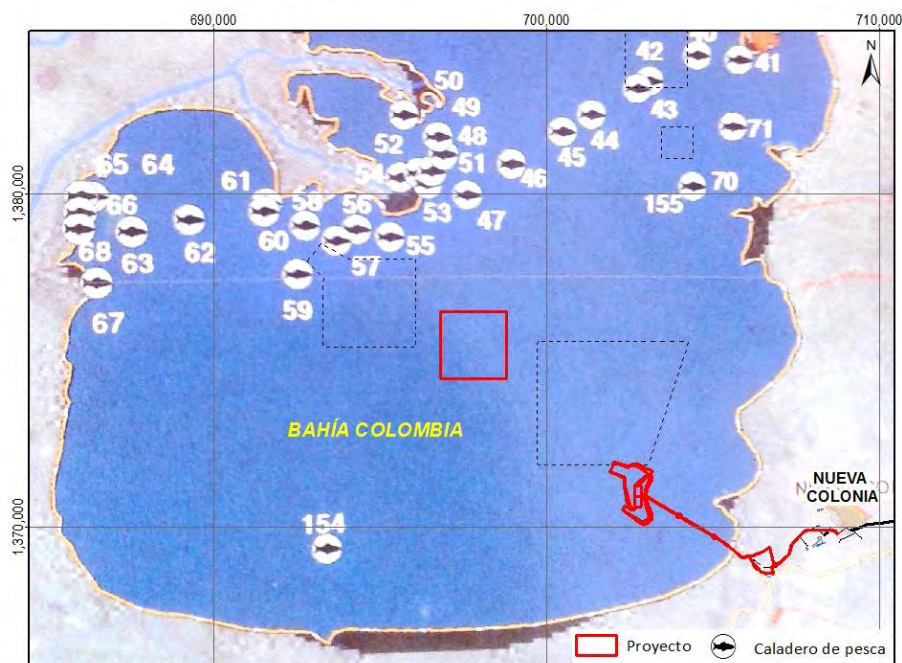




Figure No. 5.23 Fishing grounds of the Gulf of Urabá reported by INVEMAR and polygons of the project

Source: Instituto de Investigaciones marinas y costeras INVEMAR

According to the information provided by the surveyed fishermen, the fishing activity is not developed in specific places permanently. The use of instruments such as the trammel, requires large routes that are not previously delimited by the fishermen; which does not allow to establish permanent zones for the fishing activities, since their routes depend on the weather, the time of year, the fishing gear, the type of boats among others. It is worth noting that fishermen in the area carry out long-term fishing operations, because they leave the Colombian bay to places where the resource is more abundant.

Some of the places that were identified in the development of the fishing effort sampling were: Candelaria Bay (Atrato River Delta), Coquitos Point (Bahía Colombia), Mouth of Leon River, Suriquí River, Boca Tarena, Canal Nueva Colonia, Los Hoyos, El Orcao, La Playona Bahía Margarita

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- *Georeference of vessels in the area of offshore influence of the project*

In order to identify the artisanal fishing activities in the area of offshore influence of the project, some monitoring was carried out to verify the intensity of the fishing activity in the area, as well as the activities associated with the transit of vessels in the area of influence Offshore. As a result of the present activity, the smaller vessels that performed some activity in the area per day were identified and georeferenced, resulting in the following report:

Below is illustrated by dates, the fishing activities monitored (See Figure No. 5.24).

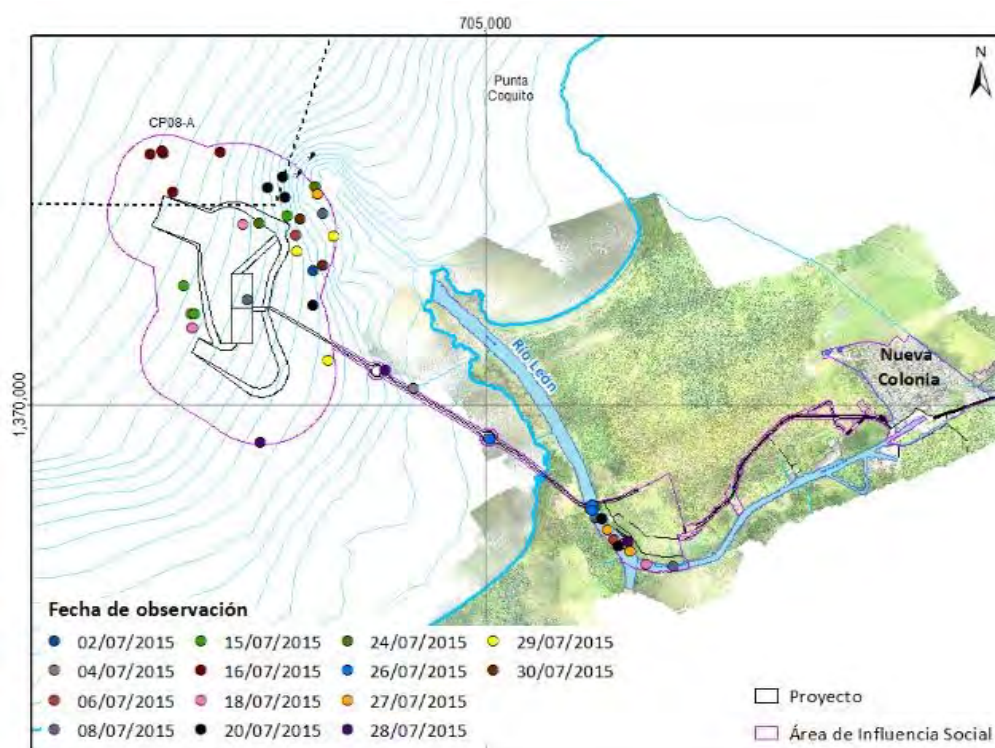




Figure No. 5.24 Observation days and inspections identified

Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

Figure No. 5.25, Figure No. 5.26 and Figure No. 5.27 show the vessels observed per day, evidencing a naja presence of vessels in the area per day of georeferencing.

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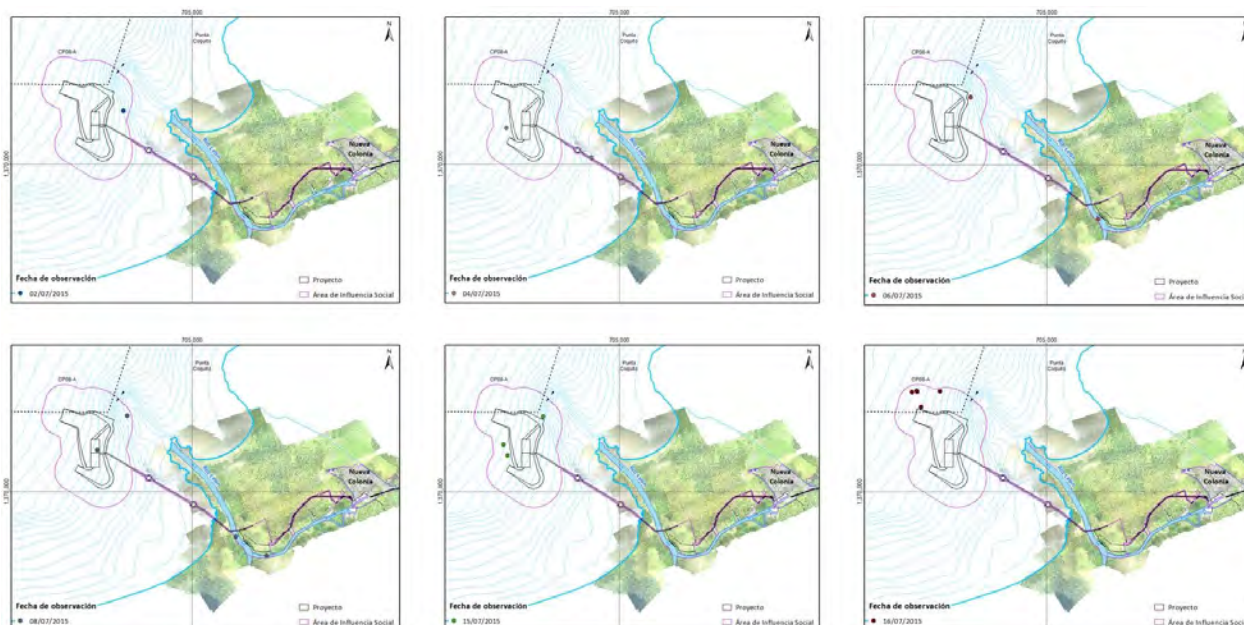


Figure No. 5.25 Observation days and vessels identified
Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

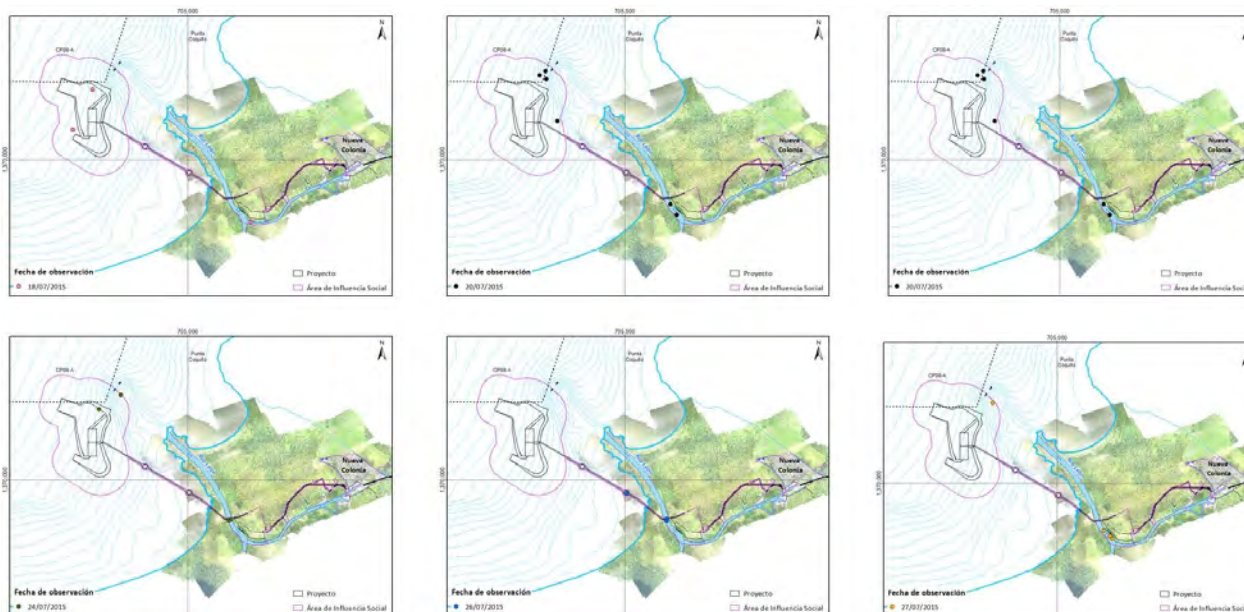


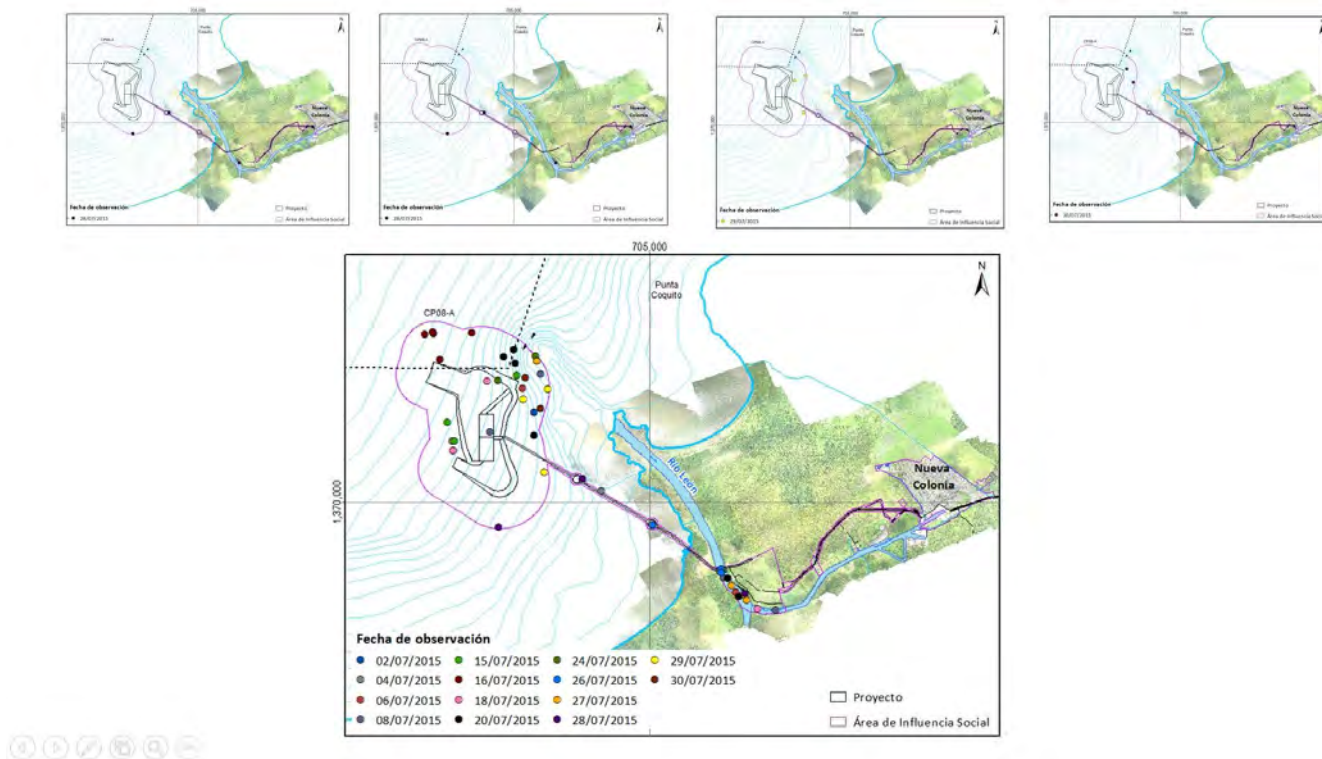


Figure No. 5.26 Observation days and vessels identified
Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015



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In the monitoring carried out, it was possible to demonstrate that in the period between the 02 to the 30 of July, a total of 47 vessels were registered within the project area.

– Ships in transit in the area of social influence of the project

During the development of georeferencing activities, vessels in transit in the area were reported. Most of them were used for the development of artisanal fishing activities in the areas of the Leon River delta, as well as in the high zones of Bahía Colombia, as shown in the 47 vessels identified, of which 55.3% were in transit to another place to perform their tasks.

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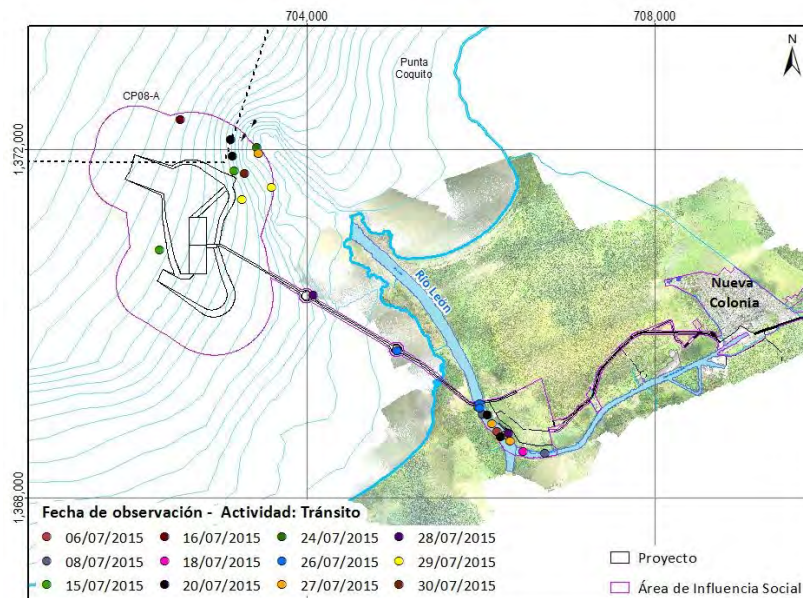




Figure No. 5.28 Boats in transit in the area of social influence of the project
Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

— Boats carrying out artisanal fishing activities in the area of social influence of the project

During the geo-referencing activities, some fishing vessels were identified that carried out their activities in smaller vessels, mostly using the gillnet or trammel net as fishing gear, of the total number of vessels, 44.7% were fishing activities as can be observed in Figure No. 5.24.

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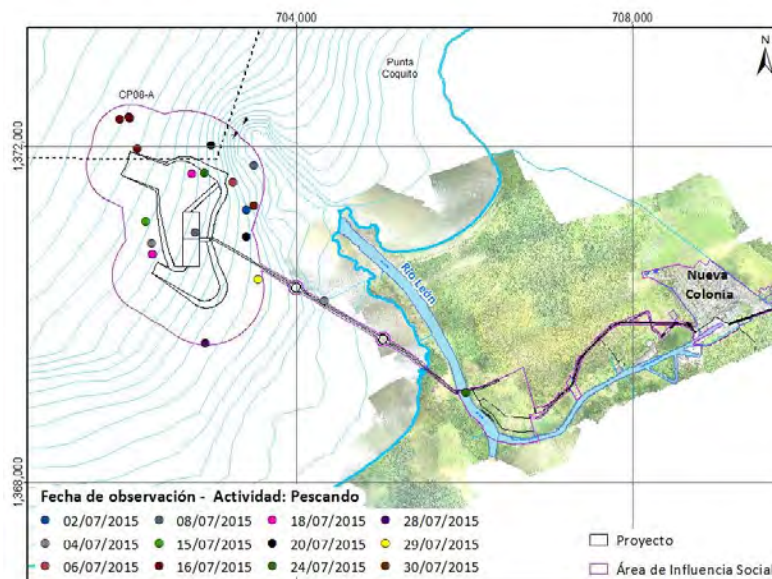
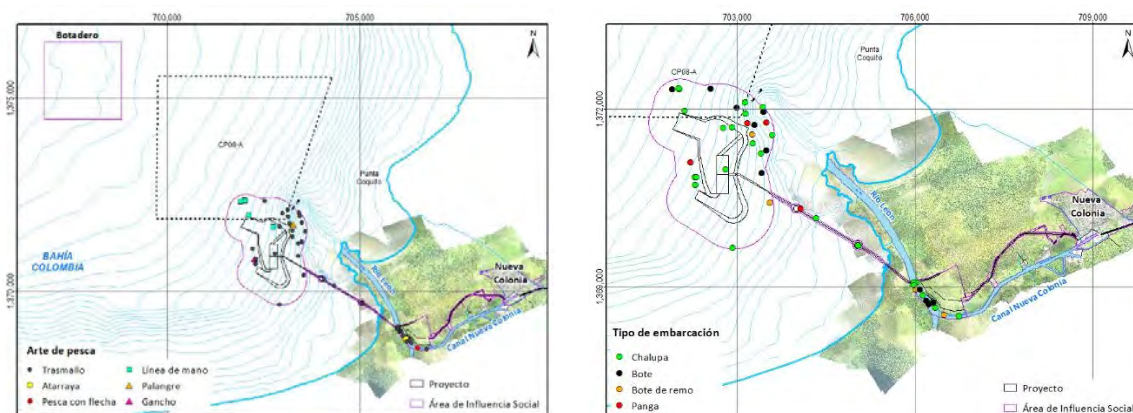


Figure No. 5.29 Boats carrying out fishing activities in the area of social offshore influence
Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015



In the same way, the fishing gears identified in the offshore zone and the type of vessels present in the area are reported.



Fishing gear in the social offshore area

Type of boats

Figure No. 5.30 Fishing gear used in the area of social influence
Source: Made By Aqua &Terra Consultores Asociados S.A.S. 2015

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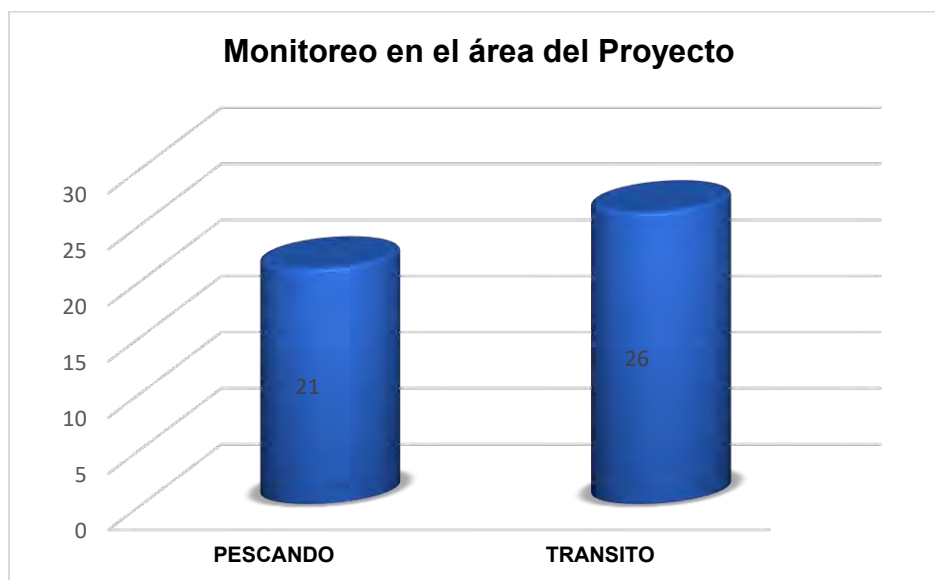


Figure No. 5.31. Monitoring in the project area



Source: Made By Aqua & Terra Consultores Asociados S.A.S. 2015

– Boats present in the offshore area

In the following image, we can see the total of vessels identified in the area inside and outside the area of influence of the project. As can be seen, boats are registered mostly in the Canal Nueva Colonia River and Leon River Delta. Considering the information reported in the fishing effort, one of the sites with the greatest aggregation of fish is the Leon River Delta. Boats of passage were registered that go to the high areas of the fishing ground where the resource is greater and more abundant.

Recreational and Cultural Activities

It was evident that in both Nueva Colonia Township and the El Canal settlement there are no sports or recreational scenarios where their communities can exercise these activities. It only has micro-soccer fields in some schools of the township that are used by its students.

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- *Development poles*

The Gulf of Urabá can contribute in a significant way to the development of Antioquia's foreign trade, making it much more competitive and efficient in terms of logistics costs, taking advantage of its privileged strategic and geopolitical location to serve the Caribbean markets NAFTA, Europe and the Basin From Pacific; as well as the intercommunication of the Asian and Atlantic markets; benefiting in addition to the modernization that Panama is going to carry out in its Canal and the short distance that would remain of it for the recalling of the ships.

The possibility of building and / or adapting an existing port in the Urabá region would not only benefit Antioquia but would be an excellent option for the Coffee Region that exports 70% of the national coffee and the city of Bogotá with its large number of industries, this is due to the savings that would be obtained in transportation freight, since the distance between Medellín and Cartagena is 643 kilometers while that of Medellín to Turbo is 380 km, that is, 42% less. The savings in transport distance between Cartagena and Turbo from Manizales is 263 km (28% less) and 398 km. From Bogotá (35%). This without mentioning that the port logistics in Urabá has a great experience that the banana workers have built for a long time¹¹¹.

These works will make the Urabá area a very attractive place for the creation of new companies, which will give much more development to the region, establishing the need for better public services such as: energy, drinking water, communications in general, and the necessary services for a great industrial development¹¹².



With the future routes the port of Urabá will be four and a half hours from Medellín, so this region would have a great agroindustrial and industrial development, which will make it one of the most attractive in our country, and with excellent savings in value. of freight for importers and exporters¹¹³.

This great integral regional project for the development of Urabá, is supported by five macroprojects (Environmentally Sustainable Region, Industrial, Agroindustrial and Port Region, Connected and Accessible Region, Socially Responsible Region and Educated Region) and two major strategies (Legal Region and Local Governments) Forts and Sustainable Onshore Ordering) that give strength to the bet that this region has from the department. Within the macroproject "Connected and Accessible Region" it is highlighted that from the Government the existence of a leadership in the project Autopistas de la Prosperidad that will connect Urabá with Medellín, southwestern Colombia, the Pan-American and the transversal of the

¹¹¹ Bladimir Taborda Rodríguez. The Port of Urabá as a development pole. Pag. 1

¹¹² Ibid.

¹¹³ Ibid.

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Americas, that in addition to linking it with the Colombian Caribbean, will allow a greater integration with Venezuela¹¹⁴.

Apart from the major projects mentioned in the section on future developments, the following mega-projects that have a great impact on Turbo stand out and that the vast majority are projects that are related to energy activities and infrastructure construction¹¹⁵:

In the municipality, there is a company entering for the production of energy and its export to Panama. This project, of 7,000 million dollars, would generate 3500 to 4000 jobs. It is thought to concentrate in the rural area of the Nueva Colonia Township, where 500 hectares have already been acquired. The first stage has an investment of 300 million dollars only in social projects.¹¹⁶

The port in Nueva Colonia aims to change the transport by barge of products such as bananas, to build a belt that crosses the gulf and deposits the products on the ships in an easier and less expensive way¹¹⁷.

The road to the Americas is presented as another great project that is generating work dynamics in the territory. This project, operated by the company Concession

Vías de las Américas, includes 50 km from the zero point (El Tancón) to the Tigre, of which about Turbo corresponds to 30% of the project.

Within the infrastructure of the subregion, it is important to mention the Urabá free zone, although it is recognized that the impact it may bring to the municipality is not very clear. This area was approved by the DIAN through resolution No. 05423 of June 20, 2008 and is located in the municipality of Apartadó. It has been thought that it could be a very important element for the whole Urabá region including Turbo, offering an easier way to access the international markets of the Pacific and the Caribbean, Central America, USA. And the European Union. Among the objectives of this area is to promote a new pole of development, develop foreign trade, offer new forms of business, generate employment and diversify the export offer (Zona Franca de Urabá, 2013)¹¹⁸.



¹¹⁴ Turbo Profile. Pag. 63-64

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

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5.3.5 Cultural Component

5.3.5.1 Non-ethnic communities

The major and minor Onshore units have non-ethnic communities, of which their characteristics such as settling patterns, historical occupation of settlement, cultural symbols, traditional festivals, traditional dances, myths and legends, handicrafts in the municipality of Turbo and traditional uses of natural resources.

Onshore unit greater municipality of Turbo

- *Settlement patterns*

These processes are old and diverse. In the early sixteenth century the Spaniards met with indigenous peoples who inhabited the banks of the gulf, the Serranía de Abibe and the Caribbean savannas of the current departments of Córdoba and Sucre.



In 1509, Alonso de Ojeda founded San Sebastián de Urabá, on the eastern margin of the Gulf of Urabá. This region was a territory of difficult control for the Spanish crown, due to the hostilities of the Cuna Indians (who are now known as Tule) and the siege of the English pirates who sailed on the shores of these lands and established both commercial as war, harassing the Spanish colonizers. In addition, the settlements of black Maroons that began to settle in the vicinity of the Gulf of Urabá from the late sixteenth century, made the picture even more complex¹¹⁹.

The origin of Turbo, one of the oldest towns in Urabá and the previous administrative, population and institutional center of the region, is related to the establishment of groups of Maroons. They founded a Palenque in the area, exercising resistance against the Spaniards and their slave structures.

Other populations that are currently part of the Antioquia Urabá are also related to this wild origin, such as the corregimientos of Mulatos in Necoclí or Uveros and Damaquiel in San Juan de Urabá.

Thus, when Urabá was annexed to Antioquia, diverse groups populated this region, which gained importance in the process of colonization officially initiated by the inhabitants of the interior of Antioquia since the beginning of the 20th century. There

¹¹⁹ Ibid., p.56

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cultural, political and economic meetings were generated in which multiple negotiations were developed.

The Urabá setting, as an important geographic frontier for the development of Antioquia, is quite recent. According to sociologist Fernando Botero, the dynamic migratory flow from Antioquia, so evident in other regions of the department, found numerous obstacles in Urabá: the isolation, the "mountain mentality" of the Antioquian outside the tropic, the high rainfall, the dense jungle, the incompatibility of the land with the traditional cultivation of coffee and the active presence of liberals, in contrast to the prevailing conservative climate of the interior.¹²⁰

Only until 1926 the departmental government of Antioquia, convinced of the need to effectively colonize and appropriate this region, began the construction of the road to the sea, seeking to boost the economic development of the region.

In spite of the efforts, the constant interruptions caused that the work was concluded shortly before half-full of century XX, and even "only one decade later it would be possible to open the automotive traffic (1954).¹²¹

Taking into account this historical process we have that: Between 1950 and 1964 the population of Urabá increased approximately four times, going from 18,886 inhabitants in 1950 to 82,969 in 1964, by 1985 the figure reached 249,239. 44 In 2006, the total population of Urabá amounted to 517,783 distributed as follows: 257,564 women and 260,219 men.¹²²

In addition to cultural diversity, the social structure is characterized by inequality between: an elite from the interior of Antioquia that controls the vast majority of economic resources and services, and a social base Afro, indigenous, mestizo, peasant that is displaced and has problems of access to health, education, public services, housing and productive means.



- *Historical occupation of settlement*

In 1905, after disputes and tensions with the departments of Chocó and Cauca, the province of Urabá is officially awarded to the department of Antioquia. This province is a large area that includes the eastern coast of the Gulf of Urabá and the mouth of the Atrato River, to the western foothills of the Abibe mountain range.

¹²⁰ Ibid., p.56

¹²¹ BOTERO, Fernando, Op.Cit. Pag. 25. It is worth mentioning that the road to the sea presented serious traffic problems until the 1990s and for 2002 there were still 110 km to be paved, between km 9 after Turbo and Arboletes.

¹²² GOVERNMENT OF ANTIOQUIA 2006. Basic indicators of Antioquia. Medellín: Sectional Health Direction, p.2.

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In addition, a territory was annexed to the eastern bank of the Atrato area, where the municipalities of Murindó and Vigía Del Fuerte are currently located. In this period Urabá represented an important promise of progress for the departmental elites because it was ideal for the expansion of the Antioquia colonization, the exploitation of natural resources and the connection of the interior of Antioquia with the Caribbean Sea.¹²³



- *Cultural symbols*

The region of Urabá, especially the Antioquia region, has a very rich cultural mix, given the migratory processes that this area has had for many years. The mixture of the paisa and its customs, the chocoano, costeños of other departments and the afro-descendant and indigenous ethnic groups, produce an interesting fusion of customs, expressions, musical rhythms and other cultural elements.

However, despite this wealth, no initiatives are evidenced either by the local government or by individuals, oriented to document and materialize this wealth. This can be explained because the recognition of the intangible heritage that today is made since the 1991 Constitution is rather to protect and promote the return of ethnic cultures, which is visible in the existence of bilingual education in indigenous communities and in private and public initiatives to highlight the elements that are conserved in the ethnic groups present in the municipality, both indigenous and Afro-descendant and that are expressed in music and craftsmanship above all¹²⁴. (See Photograph No. 5.53).

¹²³ Culture and health in Urabá. Challenges for the reduction of maternal mortality. Chapter 3. Historical context, economic conditions pag. 55

¹²⁴ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. & ARAUJO IBARRA & ASOCIADOS S.A., Op. cit. p 481.

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Photograph No. 5.38 Fishing, cultural art
Source: Made By Aqua & Terra Consultores Asociados S.A.S. 2015

- *Traditional holidays*

The customs and beliefs of the turbeño have an Afro-Indian influence, their culture is the product of the amalgamation of cultures from different parts of the country, especially the culture of the North Coast of Colombia, Chocó and Antioquia

Some of the main festivities are:

- ✓ Birthday of the Municipality of Turbo - Accordion Festival: Since August 28, 1990, this festival has been held every year in Turbo, with the Simon Simanca accordion festival as its main event, with the support of the Turbo municipal administration and private sector entities. As a showcase for the talent of vallenatos musicians and composers, the inspiration is taken from Simón Simanca platform, which is built in the Gonzalo Mejía park on August 28, the day of the ephemeris of the King of the Gulf: Turbo. The love, friendship, history and legends of Urabá are the excuse for the meeting of the different artists and groups of the region (See Photograph No. 5.54).

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Photograph No. 5.39 Celebration of the 173 years of Turbo.



Source: [Online] Photo gallery [Quoted on August 27, 2015] available at <http://www.turbo-antioquia.gov.co/>.

- ✓ **Antioqueñidad day:** It is held in honor of the Independence of Antioquia, in which the children of the different educational centers and institutions participate, disguised characteristically with attire that reflect the idiosyncrasy of the department (See Photograph No. 5.55).



Photograph No. 5.40 Celebration of the independence of Antioquia

Source: [Online] Photo gallery [Quoted on August 27, 2015] available <http://www.turbo-antioquia.gov.co/>.

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- ✓ Antioqueño Caribbean Festival: Traditionally, Turbo celebrates the Independence of Cartagena on November 11 as the main festivity of the year, inheritance of the Bolivarenses who colonized these lands looking for the white gold of the beginning of the last century: the tagua. The central event of the Antioqueño Caribbean Carnival is the Popular Beauty Reign that takes place, year after year, since 1945 when Clobis Yabur was elected as first Miss Turbo (See Photograph No. 5.56).





Photograph No. 5.41. Parade at the celebration of November 11.

Source: [Online] November Carnival and popular Turbo reign [Quoted on August 27, 2015]

Available in [http:// http://carnavalesenturbo.blogspot.com/](http://carnavalesenturbo.blogspot.com/)

Sweet Festival: Nine years ago, in the park of Gonzalo Mejía, in the afternoon hours of the holy days, a gastronomic sample with the provocative sweets that the oral tradition and the originality of the Afro-Caribbean culture breeds in the kitchens of Turbo families.

Other festivities and celebrations are those of La Virgen del Carmen, Santo Ecce Homo, Holy Week, Intercollegiate Dance Festival, Intercollegiate Festival of Theater, and Afro-Colombian Week (See Photograph No. 5.57).

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Photograph No. 5.42. Parade in the week of Afrocolombianity.

Source: [Online] Photo gallery [Quoted on August 27, 2015] available at <http://www.turbo-antioquia.gov.co/>.

• *Myths and Legends*



In 1992, the "first parade of myths and legends" took place in the municipality of Turbo on the occasion of the commemoration of the 500th anniversary of the Spanish coming to America. The act was organized by some educational establishments and neighborhoods of the city on the initiative of the "Corporación el Reencuentro de las Culturas" of the Turbo municipality.

Interpretations were carried out of the following myths and legends: India Mayeya de Peyeye, La Tolúa, El Duende, El Muán, Hojarazquin, La Llorona, La Teta Sola, El Zancón, La Madre Monte.

El Hojarazquin del Monte: A young man who hit his mother hit her with a branch of a tree, then threw her on the ground and trampled her on horseback. As punishment for this devilish act they stuck all the leaves of the forest, the lint and all kinds of disgusting things that were on the ground, now he goes around the world scaring children.¹²⁵

La Tolúa: It is a myth of the loggers of the region of Urabá, since the end of the last century they started their exploitation through the rivers Sucio, Atrato, León, Mulatos, San Juan. The Tolúa takes its name from the Ceiba Tulua tree, very thin wood specially used for the manufacturing of boats. The cry of the Tolúa attracted the loggers who traveled alone through the jungle to exterminate them when they had

¹²⁵ Turbo and its traditions. [Online] <http://tradicionesdeturbo.blogspot.com/2010/10/turbo-y-sus-tradiciones.html> [Quoted 2015-07-11]

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them at a fingertip reach. The figure of the Tolúa is that of a woman standing like a tree, her clothing is of the same bark, her hair is moss, with mouth and lips very like a trumpet, and her bony arms and hands extend the trumpet several meters to carry her screams to the end of the forest¹²⁶.

El Duende: He is a dwarf very much in love with women, especially girls; he would take them and to find them, you would have to find the godparents to find them and get them out of the high mountains. He would bother the houses of the pretty girls, and he would take any object or thing that he knew the girls liked very much¹²⁷.

El Mohán: He was a very hairy man who lived a long time ago. This man was a murderer; he died, and the spirit of that man was incarnated in another murderous man and now he lives eating a lot of fish under the waters, he also eats a lot of raw meat with salt. He would take the prettiest girls and to recover them, the parents would have to have a lot of faith and never lose hope. They should look for the godparents of the lost girl, then give the Mohán a stone and the parents would place their hands-on crosses and call him three times like this Mohán, Mohán; here you have the stone that you have searched for all of your existence. As a consideration, give us the girl you kidnapped safe and sound and disappear for all eternity.¹²⁸

La Llorona: It is the disheartening cry of a mother who left her son abandoned on the bank of a river. By constantly listening to the cry of her son, she repents and leaves quickly in search him, but when she arrives at the river she cannot find him anymore. From that moment she has been crying inconsolably and those who know say that whenever they pass by that river they hear a disconsolate cry that says: "I left him somewhere around here: where will I find him?"¹²⁹

La India Mayeye de Peyeye. Myth originating in the municipality of Turbo: she was a very tall woman, slender with very long black hair, always appeared at night, especially when there was a full moon. With her great stature, her slender figure and her heartbreaking cry she would scare everyone who passed, especially the drunkards and spoiled children.¹³⁰

La Teta Sola. Myth originating in the region of Urabá "At the end of the last century and the beginning of the present, when the greatest economic activity in the region was the extraction of black rubber latex, the picking of the tagua and then the ipecac root, men and women they usually left in groups and then dispersed in the field, then in the afternoon when the slaughter was over, one of them played a drum and



¹²⁶ Ibid.,

¹²⁷ Ibid.,

¹²⁸ Ibid.,

¹²⁹ Ibid.,

¹³⁰ Ibid.,

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everyone went towards that place where they met and then together they returned to the camp. At that time, then, in the country, a horrible woman who had a single huge tit of about two meters, beat this one in a dry pole imitating the sound of the drum, in order to mislead the poor tagueros or "raicilleros" who disappeared, taking them to the Teta Sola.¹³¹

La Madre Monte: It inhabits the thickets of the mountains and the headwaters of streams and creeks, when it urinated in the streams, it polluted the waters, which looked horrible and disgusting, with long hair and a very bad smell. He stole the children and left them tied to the trees where they were almost always found dead or sick because of hunger and insects.¹³²

- *Traditional Dances*

Due to its great affluence of afro-descendant populations there is a variety of rhythms that strengthen and enrich the Turbo's folklore. The most common dances are the *cumbia*, the *bullerengue* and finally the sextet.



- *Handcrafts in the Turbo municipality*

It is one of the most representative cultural expressions of both Afro-descendant and indigenous communities, constituting the identity and memory of each people. These manifestations make up the cultural heritage, which is the maximum expression of the communities, understanding that the heritage is everything that belongs to us, everything that is inherited or built and that is deeply rooted in life.

Handcrafts made with totumo, palm seeds from Atrato, among others, are identified (See Photograph No. 5.58).

¹³¹ Ibid.,

¹³² Ibid.,

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Photograph No. 5.43 Handcrafts made in Turbo.



Source: [Online] Turbo cultural [Cited on August 27, 2015] available at: <http://diverculturaturbo.blogspot.com>

- ***Traditional uses of natural resources***

In general terms, the current model of use and exploitation of natural resources in the area of the municipality of Turbo, is characterized by¹³³:

- — Development based on the coexistence of a traditional agricultural economy that only seeks to guarantee subsistence and an agro-business system that has generated a high concentration of land, investment, income, services and opportunities.
- — Development of economic activities where low technological investment predominates, limiting the generation of added value and the establishment of productive chains.
- — Lack of an adequate physical infrastructure and organizational structure to offer alternative economic activities such as tourism and ecotourism.
- — Deficient linkage of goods (other than bananas) and services to regional, national and international markets, resulting from the development model oriented to the domestic market.
- — Insufficient level of organization and limited supply of qualified labor, do not allow access to opportunities for socioeconomic development.

¹³³ PUERTO BAHÍA COLOMBIA DE URABA S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p. 49

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- → Occupation of the territory without taking into account the characteristics of the natural environment and ignorance of the potentialities of the area, has led to poor planning and control of productive activities.
- → An inadequate and disarticulated system of human settlements, with low capacity to offer opportunities that improve the living conditions of the population.
- → An inadequate and disjointed transportation system (road, air, sea and river), necessary for the competitiveness of the region.

All of the above has led to an inadequate ordering of the marine and coastal territory in the area, generating a disorderly growth of the coastal zone, and a greater pressure on the ecosystems and their resources, with the consequent detriment in the conditions of life of the population.



On the other hand, rural and urban development has taken place without any control and planning, characterized by the location of housing and commercial establishments in high risk areas such as flood areas of rivers and streams and on the coastline (in areas of public use of the maritime and river domain of the nation); causing a disorderly physical growth and deterioration over natural resources.

- ***Susceptibility to change***

These communities, due to the fact that they have been victims of violent processes that originated great changes in the structure of property, in the use of the land and also in processes of forced displacement, have had to improve their adaptability to changes, both in terms of room, as a trade and forms of subsistence. This is denoted by a great openness towards possible development processes represented in industrial, port, agroindustry investment projects, etc., since they recognize in them a possibility for the improvement of their standard of living. ¹³⁴

The community in general, recognizes the port's vocation of the municipality and its importance to find sources of employment and a way out not only of products to foreign markets, but of them to other places in the country and even abroad, if we take into account that There is already a commercial exchange through the existing port with Panama.

¹³⁴ Ibid., 49. P.

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It should be noted that the closeness to this country generates family ties not only among the indigenous communities of the territory in general but also among the rest of the community that easily enters and leaves the two countries by sea.¹³⁵

Minor Territorial Unit of Nueva Colonia township and El Canal settlement

For the present chapter, reference will be made to the document, "Narrative of the grandparents on the cultural identity of the residents of the of Nueva Colonia township."¹³⁶

Nueva Colonia is a territory where its inhabitants strengthen their lives in daily life, leaving every moment engraved in their minds, making part of their stories, forging themselves in their field work to achieve a better tomorrow; At first the man entered the mountain through the mountain and found a place to live. There he established his first palm and wood ranch, forming a new colony, which today is the township of Turbo.



José María comments, "Joaquín Cavadia, who was already living here, told me: José María, the long company that pod there was there, I took all that land where is the San Jose neighborhood today, that neighborhood that they say "Long Tail", the name of him was put San Jose because it was made by me, all that land was mine and apart the gift, because the teacher said: look here what you want is people, so that this grows, because no, I said I have a piece of land there, I told the teacher, there you can make a house and that's how it was, I started to make shacks and give them to people, and neighborhoods bought me small land plots at fifty pesos. That's when the company began to do this here, because all this land was empty and when they threw the channel trail and the big river road, because this was a colony like a lost thing, there was no road or nothing, we went there by San Jorge, there was the path that went to Currulao by foot and from here we went to Rio Grande by foot too, then came the trails and we left through the trails, after the dump trucks came as they brought the bulldozers "¹³⁷

"According to the inhabitants, when the road for the transport of the banana was opened, people from other sectors arrived in search of work and settled in Nueva Colonia, building their small houses, giving rise to the first neighborhood that is now the center. In this process the transformation of the landscape originates, in which

¹³⁵ Ibid., 49. P.

¹³⁶ ALTAMIRANDA, R, MADERAS VERTEL & BLANQUICETH, DELGADO J.M, DE LOS SANTOS J, MADARRIAGA V, MARIN M, MARTINEZ Z, VALDERRAMA P, History of Nueva Colonia. Narrative of the grandparents about the cultural identity of the residents of the Nueva Colonia township. 2013. 14 P.

¹³⁷ JOSÉ MIRANDA. Narration as cited in ALTAMIRANDA, R, MADERAS VERTEL & BLANQUICETH, DELGADO J.M, DE LOS SANTOS J, MADARRIAGA V, MARIN M, MARTINEZ Z, VALDERRAMA P, History of Nueva Colonia. Narrative of the grandparents on the cultural identity of the residents of the corregimiento of Nueva Colonia. 2013. Page 4.

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the hand of man begins to dominate over nature and the environment, dismantling mountains and cultivating crops, populating the territory "¹³⁸

The gentleman relates. Ramón Altamiranda. "I arrived in the year 60, I had already started the road and I was already working, and a client told me here, on the road to a point called Nueva Colonia, there they are opening a farm you can get work, there were (two) or three small lots already planted with banana, and the rest required lawn mowing and cleaning, at that time the company is under a mango stick, there is installed a power plant to do the spreadsheets and things in the office , Joaquín Cavadia was left here, deceased, and the first neighborhood that was formed by the same community, in the Barranca del Caño, was the center, that was fitted with the land of the canal, then the people just took and started making their premises, their lots, as that was wasteful then everyone took a lot. "¹³⁹

From the beginnings of Nueva Colonia, the stories speak from the spaces that were transformed into neighborhoods and the first infrastructures were built that still exist and have had modifications but are notorious for the collective work that the inhabitants of a certain time did, that for the feeling of changing and having a better environment to live in, they made an effort and achieved an objective proposed that would benefit an entire community, leaving a clear example that everything can be better if there is a sense of belonging by the place where it is inhabited, having rationality in front of the events and processes through which they must pass and interweave a structure in memory.



Throughout this evolution of actions, the ways in which conjunctural processes are generated, in the formation of the neighborhoods, which at the beginning were formed by the seizure or possession of vacant land, passing on to the donation by the banana producers, are identified. and some settlers who had land to donate, then after the time the lots and houses were sold, and in the 80s and 90s the invasions originated where three neighborhoods were created.

When entering the decade of the 2000, the same municipality initiates the process of giving titles of proprietary to the community that is based in all those lands.

Arguments with their narratives the constitution information of the neighborhoods, which are the majority of the population.

¹³⁸ Cristancho Altuzarra, J. G. (2012). As cited in ALTAMIRANDA, R, MADERAS VERTEL & BLANQUICETH, DELGADO J.M, DE LOS SANTOS J,MADARRIAGA V, MARIN M, MARTINEZ Z, VALDERRAMA P, History of Nueva Colonia. Narrative of the grandparents on the cultural identity of the residents of the corregimiento of Nueva Colonia. 2013.

¹³⁹ RAMON ALTAMIRANDA. As cited in ALTAMIRANDA, R, MADERAS VERTEL & BLANQUICETH, DELGADO J.M, DE LOS SANTOS J, MADARRIAGA V, MARIN M, MARTINEZ Z, VALDERRAMA P. History of Nueva Colonia. Narrative of the grandparents on the cultural identity of the residents of the corregimiento of Nueva Colonia. 2013.

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Mrs. Zoila accounts, "In 76, I came to this town, the neighborhood did not have a name it was still called Rabo Largo, then with time it was already divided that the neighborhood Las Flores San Jose neighborhood, and there was already San Joaquin and made Balsilla, then started as the Caribbean 1 and as the Caribbean 2, first was San Joaquin and that's where we started the neighborhood where I live that was the Uniban neighborhood, we got into the invasion of the Uniban neighborhood and in November 29, from there, Mr. Campillo came out owner "¹⁴⁰

In the stories told by the grandparents of Nueva Colonia, they highlight the first school that was started by a police officer and supported by the community. Today that school is the educational institution Nueva Colonia, it has two campuses and an adequate infrastructure and at its disposal a public library, where teachers and students take advantage of the programs offered by the library service; the opposite of the story told is that the school was a pile of sticks and branches of palms, where only 20 children from the village studied and did not have books.

- *Intangible cultural heritage*

In the Nueva Colonia township a large number of establishments are identified, dedicated to religious cults of different kinds. Generally the practitioners of these different religions dedicate the Sunday days to the different cults (See Photograph No. 5.59).

¹⁴⁰ S. ZOILA. Cristancho Altuzarra, J. G. (2012). Quoted by ALTAMIRANDA, R, MADERAS VERTEL & BLANQUICETH, DELGADO J.M, DE LOS SANTOS J, MADARRIAGA V, MARIN M, MARTINEZ Z, VALDERRAMA P, History of Nueva Colonia. Narrative of the grandparents about the cultural identity of the residents of the Nueva Colonia township. 2013

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Photograph No. 5.59 Infrastructure of religious communities in the minor territorial unit of Nueva Colonia



Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

- ***Real Estate Declared as Cultural Interest***

The Nueva Colonia township and El Canal settlement do not have any real estate declared of cultural interest.

- ***Cultural Characteristics***

The El Canal village, which, as already mentioned, is formed by the arrival of several members of the same family, coming from a nearby village, victims of forced displacement, does not have cultural characteristics different from the regional ones. They identify themselves as a nucleus family. Their closest relationship is with the Nueva Colonia township where they go out to buy groceries and to request some social services.

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- ***Sacred sites, recreational and leisure spaces***

In the chapter of the spatial component (Numeral 5.3.3), the different recreational and leisure spaces used by the inhabitants of the communities of Nueva Colonia and El Canal, as well as the existing infrastructure, used as a cemetery, is considered by them a sacred site.

Cultural Modifications

This community, which has been settled on the site for about 6 years, feels protected and calm despite not having the minimum public services or any environmental sanitation condition¹⁴¹.

Since it was already displaced but found an apparently safe place, it has reduced its basic needs and because they claim to own the land, they may have some difficulty accepting the change, unless it represents a significant improvement in their level of life, such as a better site than the current one with access to social security, employment, health and energy among others¹⁴².

- ***Bases of the socialcultural system***

In the different aspects of the daily life of the inhabitants, as a traditional cloth that characterizes some symbols and customs, a community or town that lives and revolves around its history in the evolution of time, must refer to the beginnings of the history of how this township was before its economic, political and sociocultural conformations that today identify it in all its ethnic and cultural diversity, which are directed to the contextualization of the Nueva Colonia township from the vision of development, evolution and panorama cultural heritage of their ancestral legacies, concordant with the dynamics and historical cultural factors that were emerging in the processes that were given here for the transformation, configuration and consolidation¹⁴³.

The cultural practices that were given in the past were giving guidelines for the simultaneous construction of the identity of the inhabitants, based on how they see their context and their history¹⁴⁴.



The grandparents in the narratives, emphasize that in their daily practices the most important were the values and mutual respect that were given to each one, defining

¹⁴¹ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. Op. cit. P. 495.

¹⁴² Ibid.

¹⁴³ ALTAMIRANDA, R, MADERAS VERTEL & BLANQUICETH, DELGADO J.M, DE LOS SANTOS J, MADARRIAGA V, MARIN M, MARTINEZ Z, VALDERRAMA P. Op. Cit. p11.

¹⁴⁴ Ibid.

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that they have not been lost in them, but in the new generations since the boys do not respect, since there is a breakdown in the relationships that are lived today.

In the cultural activities that were carried out, there were the parties for the integrations of the population, made with music bands brought from Córdoba and the older adults enjoyed those parties with the greatest possible respect, collaborating with the organization, since it was done with the support of the whole community.

These festivities, due to the violence in the area, stopped being performed, for a long time, then they were re-implemented on November 11, where they do not bring orchestras or musicians, but the young people enjoy it disguised, throwing cornstarch and water at themselves.



Mrs. Virgilia narrates about the cultural activities "*When the people thought that here was going to enter the car, that one was going to see this town as it is now, in those days everyone contributed their small contribution, like a Mr. Samuel Jiménez, brought a band of music, he also donated to the board for projects from the town. There were also three nights of porro, real porro, not really those bandit that they bring now, we did not have light shining with tufts of oil, and here all activities that were done were for the benefit of the town, the adults met and enjoyed the holidays and the young people were connected participating and everything was so cozy, the tradition of the parties and the reign was lost*"¹⁴⁵(See Photograph No. 5.60).



Photography No. 5.60 Turbo Folk Group

Source: [Online] Turbo cultural [Cited on August 27, 2015] available at: <http://diverculturaturbo.blogspot.com>

¹⁴⁵ Ibid., p 23

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- *Use and management of the environment*

The community of Nueva Colonia and the Canal does not have complete public services, which is why its environment suffers from an adequate environmental management. There is no culture of protection or conservation for which their environment is deteriorated. However, the social problems of the area, in other aspects such as security and income are so high that these aspects do not seem to matter for the population, except for the teachers of the school who try to generate an environmental culture without much success.

Nueva Colonia, is located in an area intervened by extensive livestock; recognizes that the area is the result of a filling made years ago as a result of the construction of the navigable canal that emerges from the León River. For this reason, it is aware that sites closer to the sea are floodable, of low bearing capacity and much more susceptible to flooding. It is striking that although the site where they live is also susceptible to flooding, they see the flooding with good eyes, because according to them the mud that remains fertilizes the land and can improve their cultivation of bread.

5.3.5.2 Ethnic Communities



Major Territorial Units

The negros brought from Africa as slaves entered the American continent in its great majority by the port of Cartagena. From there they were transported to different parts of the Viceroyalty of Nueva Granada. However, with the passage of time and the precarious living conditions caused many of them to choose to flee and take refuge in inhospitable and distant places, swamps and jungles where the white master did not dare to enter.

This is how the first shelters of negro maroons called *palenques* (afro-american townships) were created, which allowed many African customs, beliefs and practices to survive. In the 50s, period known in the history of Colombia as "era of violence" by the struggle between liberals and conservatives, there was a great wave of immigration¹⁴⁶

In the 1960s, Urabá led one of the most lasting internal conflicts in Colombia, as a deep crisis broke out between the owners of banana plantations, administrators and union leaders, which ended with the expulsion of the owners of the farms. As of that moment the systems of administration of the farms were transformed (with great

¹⁴⁶ GARCÍA, Clara Inés. Urabá, region, actors and conflicts 1960 - 1990. Santa Fe de Bogotá: Universidad de Antioquia. 1996, p.12.

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salaries for administrators) and a wake of death and desolation was left. Likewise, towards the end of the 70s and the beginning of the 1980s, this area was the epicenter of armed confrontations between the Colombian army and the insurgent guerrillas of the Revolutionary Armed Forces of Colombia (FARC) and the demobilized Popular Liberation Army (EPL). Many of the members of the political movements Unión Patriótica (UP) and Esperanza, Paz y Libertad, settled in this region, were murdered and displaced by self-defense groups¹⁴⁷.

Between the 1980s and the 1990s, private armies of self-defense emerged in the area to fight not only the guerrillas but also union leaders, and any social movement whose actions were interpreted as contrary to private property and the interests of the owners of regional economic power. At present, although these groups accepted a peace process, civil society still feels the fears of conflict and distrust to participate actively in the development of their region¹⁴⁸.

As a consequence of these conflicts, there was a wave of displacement of whole families from the countryside to the urban centers of the region and some capital cities of the interior of the country.

In accordance with the above, the Urabá region was configured through different processes of social mobility that made it culturally diverse. Among the groups that comprise it are:

- – Afro-Colombian communities, which arrived in the area from the Colony to recent migrations from the Atlantic, Pacific and Atrato rivers.
- – Tule and Cuna indigenous communities, who live there before the Colony.
- – Embera, Chami and Katio communities, from western Antioquia and Chocó.
- – Zenú indigenous communities and peasants of the Atlantic coast region (Córdoba, Sucre and Bolívar).



- ***Afro-descendant communities***

Urabá is inhabited, in its majority, by Afro-Colombian communities.

These have developed strong crossbreeding processes with other groups and do not manifest a specific identity and feel of Afro-descendants or Afro-Colombians,

¹⁴⁷ GARCÍA, Clara Inés. Urabá, region, actors and conflicts 1960 - 1990. Santa Fe de Bogotá: Universidad de Antioquia. 1996, p.12.

¹⁴⁸ GARCÍA, Clara Inés. Urabá, region, actors and conflicts 1960 - 1990. Santa Fe de Bogotá: Universidad de Antioquia. 1996, p.12.

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which has hindered and delayed ethnic organizational processes promoted by the State and Afro communities from other areas of the country.¹⁴⁹

Law 70 of 1993 - which seeks to recognize Afro-descendants, identity characteristics and territorial rights - is difficult to apply in a region such as Urabá. The strong struggles for land, experienced since decades ago, complicate the recognition of collective territories for these communities. That is why the work of Afro-Colombian leaders consists, fundamentally, in sensitizing communities about their ethnicity and the search for self-recognition.

Afro-Colombians occupy different spaces and develop different economic and political activities. They inhabit rural and urban contexts, performing both in educational and administrative institutions (banana agroindustry), as well as in agricultural productive forms in which natural resources are exploited (fishing and wood).

These communities represent an important political force in the region and have people who occupy high and medium positions within the municipal administrations, observing that their organizational process is stronger in municipal governments and municipal institutions than in local organizations¹⁵⁰.

At present, there are numerous social movements with support from the central government, which seek to recover the cultural elements of the Afro-descendant community. However, only in the Palenque de San Basilio are results in this respect, with recovery of language, traditions and folklore.



In the Urabá area, the Afro-descendant community has many problems of survival due to low living conditions, but above all due to the violence experienced in the area in recent years. For this reason, no cultural movements are detected with expressions of the black race or government programs aimed at this end.

One of the most organized groups in the municipality of Turbo and that is in a process of ethnic constitution, is that of the negro population.

In addition to the Major and Minority Community Councils in which black communities should be constituted to be recognized as an ethnic minority and have territorial rights, we find other negro organizations such as:

¹⁴⁹ Culture and health in Urabá. Challenges for the reduction of maternal mortality. Chapter 4. Cultural Diversity in the Urabá region. p. 73

¹⁵⁰ Culture and health in Urabá. Challenges for the reduction of maternal mortality. Chapter 4. Cultural Diversity in the Urabá region. p. 74

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- – Afro Colombian Students Projection to the Future.
- – *Cimarrón* Circle of Studies Nelson Mandela.
- – Afro Colombian *Palenques*.

These organizations bring together dissimilar subjects and work with the aim of improving the living conditions of negros and preparing them for the administration of future collective territories.

It should be mentioned that the network of non-governmental organizations composed of Afro-descendant communities is wide and is connected to international NGOs that have been fighting since the 1960s for the so-called civil rights in the United States of America¹⁵¹.

• *Demography*

In the municipality of Turbo, according to the DANE, 80.9% are identified as communities that call themselves as Afro-descendants, in relation to the rest of the population that is counted as half-breed or white, which is equivalent to 19%. (See Table No. 5.52).

Table No. 5.53 Negro Communities of the municipality of Turbo.

Negro Communities of the Turbo municipality Population census DANE 2005	
Negros	99.217
Raizal	57
Total Afros	99.274
Non-ethnic communities	23.506

Source: DANE 2005



Taking into account that the Afro-descendant population in the municipality of Turbo is mostly located in the urban area, it is not necessary to ignore that in the rural area the other percentage of this community is located, which is dispersed in the 18 townships that are part of the municipality of Turbo.

To speak of Afro-descendant communities is to recognize the tradition and memories that left behind the past that make up what we now recognize as part of our identity¹⁵².

¹⁵¹ PUERTO BAHÍA COLOMBIA DE URABA S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p.488

¹⁵¹ *Ibid.*

¹⁵² CULTURE OF TURBO. Turbo, Drums, crab and plantain chips. [Online]
<http://culturadeturbo.blogspot.com.co/p/antecedentes-culturales.html> [Cited 2015-16-10]

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In each of the processes that exist today in the different social communities, the Afro-descendant roots of the African slaves are latent, which spread throughout the Colombian territory, leaving in each one of them cultural contributions that represent the identity of these negro populations¹⁵³.

One of their first places was the city of Cartagena, where they arrived as slaves of the Spaniards, and even being as prisoners, their customs were present in each one of them; when they had free time they danced to their traditional dances are of the drum, and their women dedicated themselves to the kitchen and used their hairstyles as maps to escape from their masters¹⁵⁴.

Memory becomes this long process, a test of the facts and conditions in a social actor whose practices and demands have in turn allowed their recognition as a collective subject of special rights. Thanks to each of these cultural contributions and their survival in a world so cruel and selfish, to persist and live in the memory of Afro populations, the customs and traditions that left our ancestors¹⁵⁵.

Therefore, today you can recognize in each of them the importance of owning a sense of belonging for their own, as it provides bonds of attachment and respect to what is considered part of a collective or individual memory¹⁵⁶.

• *Cultural Description*

In terms of culture, these ethnic groups, unlike the indigenous, have almost no vestiges of culture, language, tradition, or other characteristics that differentiate them from the white culture. They are in a process of appropriation of their identity, taking advantage of the benefits provided by Law 70. Those community councils, which have territory awarded by the INCORA, propose ecotourism projects and take advantage of the natural beauty offered by the mouths of the Atrato River, as well as other projects of a productive nature, that allow them to improve their living conditions¹⁵⁷.

Although no one knows precisely who was the first resident of Bocas del Atrato, don Régulo Antonio Murillo Parra relates that in 1968, when he arrived, there were already 25 people living in 4 houses. They were employees of the companies Maderabá, Maduré and Maderatrato, that at that time exploited the wood in the low and half Atrato. In fact, Don Régulo, who is now 72 years old, arrived at the hands



¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ PUERTO BAHÍA COLOMBIA DE URABA S.A. and ARAÚJO IBARRA & ASOCIADOS S.A .Op. cit. p.489

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of his father, from a village called Mandé. "People came to work in the wood, but those companies no longer exist. The violence made them close," he says. When this happened, remember, many people devoted themselves to fishing and hunting the otter¹⁵⁸.

Julio Vicente Cuesta, president of the Board of Directors of the Community Council, recalls that the last company that existed in the area was called *Matuntugo*, the same name as another branch of the river. Exploited *Kativo*, a wood that is obtained in the Middle Atrato. When it closed, people went fishing, but many went to live in Turbo. "This community had been left alone," he recalls. But a tragic event represented, paradoxically, the rebirth of Bocas del Atrato¹⁵⁹.

It was the last week of February 1997. In the village of Cacarica, in Río Sucio, Chocó, about 10,000 people had to leave their land in a forced manner. "The historical reports refer to the operation "Genesis", advanced by the XVII Brigade of the Army against the FARC, as the cause of the mass exodus. Most of the displaced people took refuge in Turbo. Others, about 800, did so in Bocas del Atrato. Some more went to Bahía Cupica. People slept at the school or at the home of other people who hosted them. "Here we came to pass the scare, but at the time many returned. But since at the beginning the Red Cross visited us and there were health brigades, people adapted. One year my parents returned, but I stayed with other sisters", he says¹⁶⁰.

Before this episode, when logging companies operated, more people lived in Bocas del Atrato than today, according to Julio Vicente Cuesta. "The living conditions were good. The terrain was well conformed, but the flow of the river took back what was there. What there is now is a kind of reconstruction," he says¹⁶¹.

In Bocas de Atrato 70 families and 350 people live today. Although there is no official census, it is clear that children are many more than adults. They are everywhere: helping to wash clothes, playing football, spotting on a terrace, sleeping or in the Church. "It's tradition, to have many children. The idea is to strengthen what we have to leave something to these children," says the president of the Board of the Community Council¹⁶².

Older people work almost all the time. Most go fishing in motor boats and wooden canoes, usually during the night and for two or three days, both in the river and in the sea. Others remain working the wood, repairing boats or building arrows for



¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

¹⁶² Ibid.

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artisanal fishing with a lamp. The most abundant wood is the mangrove, which is used for the construction of houses, cooking food and to carry out the enhancement of the boats. Everything is mangrove around the farmhouse. The wood for other projects if they must get it upstream of the Atrato¹⁶³.

In general, there is a *chocoano* atmosphere. Not because of the fences that, announce that it was the Government of Chocó¹⁶⁴ that paid dredging projects in El Brazo Coquito and that in the end "they did not serve for anything", according to the own settlers, but by the customs of the people¹⁶⁵

There is no "official" conflict over this territory, as if it happens hundreds of kilometers south of the Atrato, with Belén de Bajirá, but in "Bocas" people feel like a Chocoana. "I really feel like a Chocoano, because of my tradition. This may belong to Antioquia but I feel like a Chocoano," says Julio Vicente Cuesta, president of the Board of Directors of the Community Council. "For the family, who were descendants of the Chocó, and because at the time I was born this was from Chocó, I feel like a Chocoano," says Patrocínio Cuesta¹⁶⁶.

The most fun that children have to do is to throw themselves in the river. In fact, apart from rainwater, which is collected in tanks and then people put to boil or simply consume, the waters of the Atrato are the fundamental input for daily activities. So accustomed they are to their river, that few are the cases that register of intestinal illnesses among the settlers¹⁶⁷.

But, as it is Sunday, the vast majority of children are well dressed early. The headquarters of the Inter-American Church has its doors open for adults. A pastor awaits them, while his wife welcomes the children in a room next door. This is the only religious expression in the farmhouse permanently, because on Fridays the place is visited by a Catholic missionary and there is a project to build a temple¹⁶⁸.

In the afternoon, people take advantage of the fact that some houses have their own power plants, about 10 in total, to follow the football that is broadcast by open signal. Well, if something is clear in this farmhouse, is the distribution of the fans of the teams: two followers of *Millonarios*, five of the *America de Cali*, one of *Deportivo Cali* and the others, that is to say the immense majority, of the *Atletico Nacional*¹⁶⁹.

¹⁶³ Ibid.

¹⁶⁴ Despite the fences, it is Antioquia territory.



¹⁶⁵ BOCAS DEL ATRATO. [Online] <http://atinachile.blogoo.com/content/view/580328/Bocas-del-Atrato-se-renueva-como-el-río.html>. [Quoted 2015-16-10]

¹⁶⁶ Ibid.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

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For the rest, the place has a health post staffed by the municipality of Turbo, which is visited by a nurse from Monday to Saturday and by a doctor once every fortnight. A school, in which 94 small children between the first and fifth grade are enrolled, which creates a very great limitation for those who finish primary school, because few have the resources to send their children to continue studying in Turbo. There are also three community homes of Family Welfare that serve 45 children, and a school restaurant that provides refreshments to the children of the school¹⁷⁰.

In the last year important transformations have taken place, which show that progress has begun to come with fishing. One of the most obvious changes is the construction of bridges to communicate to the farmhouse, whose central zone, the one of greater concentration, is built in a linear way in front of the river, along 850 meters. "The bridges were built with the support of the International Organization for Migration, Fundaunibán and CORPOURABÁ. They are 300 meters built in segments, not in a single line ", says Julio Vicente Cuesta, president of the Board of the Community Council. "They asked us the size of the part that was needed, but there were people who preferred to keep their patio stuffed. That's why bridges are not continuous", he says¹⁷¹.

But just as the achievements are many, the shortcomings are also many. For example, there is no permanent power for some time. Lightning damaged the generator of the diesel plant. However, the population is hopeful in a plant that is in Turbo and that the mayor of the town, Estanislao Ortiz Lara, said he was going to deliver¹⁷².

But the most important thing for Bocas del Atrato is the support it has obtained from the United Nations and various national entities to promote ecotourism, the technification of fishing and the promotion of handcrafts. Its inhabitants have organized, in terms of fishing, in an Association, while the name of the place already appears in the list of tourist attractions in the municipality of Turbo, not only for being the place where the best fish of the Colombian Caribbean is cooked , but because the joint effort of the men and women of the area are managing to transform poverty into opportunities¹⁷³.



The community councils of Manatíes and Los Mangos do not have much difference in their history with that of Bocas del Atrato and Leoncito. Its form of settlement is

¹⁷⁰ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A .Op. cit. p.491

¹⁷¹ *Ibíd.*

¹⁷² *ibíd.*

¹⁷³ *ibíd.*

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more dispersed, in the same type of topography, with mangroves and with the same needs for public and social services¹⁷⁴.

- ***Indigenous communities***

As for the indigenous communities belonging to different ethnic groups, they are located north of the municipality and move by water in small boats both inland entering the mouths of the Atrato River, as Acandí, Unguía and Panama by the sea. These communities, depending on their ethnic family, maintain many of their cultural elements, such as language, their own artisanal production of the natural resources they have¹⁷⁵. Artisanal production is marketed in small markets in the urban centers in weekly fairs sponsored by the banana foundations present in the region¹⁷⁶.

It is important to mention the cultural and linguistic differences that still exist between the Emberá family, since the Chamís, Katios, and other subdivisions of this ethnic group live in very close territories, among them there is no idiomatic understanding, the use of their natural resources is different, as well as the sense of conservation of them. They are linked by the identity they have with the rivers, on which they are located, and which allows them to position themselves geographically when they recognize them on a map¹⁷⁷.

The indigenous communities, in spite of having also been victims of violence and of migratory processes, have suffered a little less the consequences of these realities, because they feel more owners of their territories and with more tradition about them, with more protection on the part of the State and are aware that the armed groups have a little more respect for them¹⁷⁸.

In the municipality of Turbo five indigenous communities are located: Arcua or Dokerasabi, La Arenera, Agua Fría, Dokera Volcano and Cayman Nuevo with a total population of 1092 inhabitants distributed in 162 families in an area of 8,050.8218 hectares¹⁷⁹.

- ***Health.***

The health situation of the indigenous people is directly related to the nutritional imbalance, since it is a diet rich in carbohydrates and low in fats and proteins, which makes them prone to tuberculosis, pyodermatitis and scabies. They are also prone



¹⁷⁴ ibíd.

¹⁷⁵ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A .Op. cit. p.492

¹⁷⁶ ibíd.

¹⁷⁸ ibíd.

¹⁷⁹ ibíd.

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to contagious infectious diseases due to the lack of excreta disposal systems and adequate solid waste management systems. Common diseases such as malaria, smallpox, respiratory infections and diarrheal diseases are common¹⁸⁰.

In the indigenous communities there is a lack of public services, such as aqueduct and sewerage, the disposal of excreta being common in the open field as well as solid waste, although in some communities garbage is buried and burned. Water for consumption is collected of the streams closest to the communities and preventive campaigns have managed to accustom them to boiling, but only in some cases¹⁸¹.

- ***Education.***

The situation of indigenous education has differences between the Emberá and the Tule. For the former, a low academic level of the teachers is diagnosed (60% do not have a pedagogical degree), low coverage due to a high population dispersion and low motivation of the communities, incipient curricula, 80% of the facilities lack adequate physical facilities or It is in terrible conditions, lack of didactic material and little support from the municipal administrations¹⁸².

In the case of the Tule there is an educational coverage of 25% and the formal school does not correspond with the social and cultural expectations of the ethnic group. For this reason, an internal reflection began in 1989, which led to the development of an intercultural bilingual educational experience to incorporate both the ancestral knowledge with the help of its sages and the knowledge of the formal school. Due to the dispersion of their houses, the project proposed the ambulatory school with the aim of going to the sites with the highest concentration of school-age population, providing preferential attention to children to ensure the continuity of the Tule culture¹⁸³.

- ***Tenure of the land***

The modalities of land tenure in this municipality are given by ancestral possession of traditional territories, individual purchase of land and shelter. The majority of these communities do not have title of shelter, but property on traditional territories, except for the constituted shelter of Cayman New located in the river that takes its name between the municipalities of Turbo and Necoclí with an extension of 7.718,7350 hectares¹⁸⁴.



¹⁸⁰ Ibid.p.493

¹⁸¹ ibíd.

¹⁸² ibíd.

¹⁸³ Ibid.

¹⁸⁴ Ibid.

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The Arcua-Arenera and Dokera communities of the Agua Fría and Caracolí communities are in the process of constitution of shelter, which occupy in total an extension of 8,050.8218 hectares, without counting the individual adjudications to indigenous or the traditional territories of Arenera, Cold Water and Dokera Volcano¹⁸⁵.

Within the communities and reserves, the council makes individual, family and community land assignments respecting the land of paternal / maternal inheritance. There are also forms of individual tenure (Arcua case) derived from the de facto possession or purchase of land. Finally, it is the case that indigenous people have land under lease for productive labor¹⁸⁶.

To the extent that the indigenous people have been pressured by the action of exogenous agents, who have reduced their territories and transformed the environmental conditions of the environments, the communities have lost the capacity to do the traditional management with their models of intervention, which has generated an accelerated process of peasantization and the satisfaction of their basic needs through day labor¹⁸⁷.

This situation is not so pressing in the areas of shelter, but in Arcua the lack of arable land has caused this Emberá population to take possession of the abandoned peasant farms because of the violence¹⁸⁸.

These indigenous communities belong to the OIA (Organización Indígena de Antioquia). The OIA structures its organization based on local chapters of the population settlements and the larger town councils that gather and represent the first ones before the municipality or the region¹⁸⁹.

In each municipality there is a headquarters of the organization that serves as a reference for indigenous people, representation before local authorities or interlocution with private actors. Organizational expressions in the area are accompanied and guided by the central management of the OIA in Medellín and in Urabá by a zonal coordination¹⁹⁰.

¹⁸⁵ Ibid.494



¹⁸⁶ Ibid.

¹⁸⁷ Ibid.

¹⁸⁸ Ibid.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

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Minor Territorial Units: Nueva Colonia and El Canal

In the Area of Influence of the project, ethnic communities are not settled, according to the certification obtained from the Ethnic Directorate of the Ministry of the Interior and Justice, through certification # 1099 of August 4, 2015. (See Annex 5.3.6).

5.3.6 Archeological component

This chapter presents the formulation of the Archaeological Management Plan for the construction and operation project of the port terminal in Bahía Colombia, which was filed on August 24, 2015, before the Colombian Institute of Anthropology and History (ICANH) with ICANH number 24 AGO 2015 15:23 37, of the preventive archeology program in accordance with the provisions of Law 1185 of 2008. (See Annex 04).

Background

The municipality of Turbo is part of what in Colombian archeology is known as the coastal corridor, a place where hunter and gatherer populations would have carried out the invention of sedentary life more than 2000 years ago, based on experimentation with different *cultigens*, besides having created the first examples of ceramics for domestic purposes and that in turn would have collaborated in the formation of social complexity in the two nuclear areas (Mesoamerica and Central Andes).

To date, different occupations have been referenced for the area that extend from the preceramic to recent times. The first proposal of an occupation defined as preceramic is proposed from the studies on the Atlantic coast, specifically in the department of Bolívar on the Sinú river and the Canal del Dique, where various lithic materials were found such as cutting leaves and stones modified by percussion¹⁹¹.



Subsequently, inventories of sites located on the Magdalena river and the Caribbean coast were carried out, which present the preceramic component, registering in turn some sites in the Guajira¹⁹².

Ana María Groot reports in Santa Marta and in the Betancí lagoon arrowheads and lithic instruments of bifacial size¹⁹³. Near the direct area of study is the site of La Gloria, on which was found a tip of projectile type "fish tail" and that suggests

¹⁹¹ REICHEL-DOLMATOFF, Gerardo. Archeology of Colombia: an introductory text: Fundación Segunda Expedición Botánica. 1986

¹⁹² CORREAL, Gonzalo. Archaeological explorations in the Atlantic Coast and Magdalena Valley: Caldasia 11 (55). 1977, pp. 33-128.

¹⁹³ GROOT, Ana María. The Atlantic coast. In: Colombia Prehispánica: ICAN - Colcultura. Bogotá. 1989, pp 19-39.

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according to the author the entry of paleoindian hunters from the late Pleistocene, because during the period favorable conditions for human transit through the Isthmus of Panama were given¹⁹⁴ (Correal 1983: 81).

A second period that has been established for the Atlantic coast has been the Formative. This period has attracted the attention of different researchers who have seen in it the way of explaining problems such as the beginning of sedentary lifestyle, the importance of ceramics and the dependence on specialized crops of plants; This period was divided into three sub-periods and each one refers to different developments¹⁹⁵.

At a general level, the Formative would lay the foundations of agriculture and the formation of the first signs of social stratification and control of the surplus from the possible control of specialized cultigens. Two types of occupation are visible, on the one hand, those of the coast which are found in marine environments and estuarine areas where the collection of mollusks, fishing in rivers and streams, hunting, incipient horticulture and cassava cultivation.

On the other hand, there are settlements in the interior from which resources of terrestrial and aquatic fauna, freshwater molluscs, among other resources of the marshes and other tributaries of Magdalena, were obtained.



After the developments given in the Formative, and as has been reported in some cases for the Late Formative, there is a demographic decline until the time of contact with Europeans.

However, the subsequent chronological period that would coincide with that of the Regional Developments is not very clear for the region. Although there are samples of complex social processes in some places, on the contrary others in which great social changes had previously taken place, it seems that they would have followed the same degree of development¹⁹⁶.

¹⁹⁴ CORREAL, Gonzalo. Evidence of specialized hunters in the site of La Gloria, Gulf of Urabá, in the Journal of the Colombian Academy of Exact, Physical and Natural Sciences: Bogotá, vol. XV, núm. 58. 1983, pp. 77-82.

¹⁹⁵ Several authors have worked on the theme: Angulo, C. 1981. The Malambo tradition. Bogotá: National Archaeological Research Foundation. Bank of the Republic; PLACES, Clemency. FALCHETTI, Ana María. SAENZ Juanita. ARCHILA, Sonia. The hydraulic company Zenú. Archaeological study of 2,000 years of history in the plains of the Colombian Caribbean. Bank of the Republic. Gold Museum. Bogotá. 1993; BISCHOF, Henning. Canapote: An early ceramic site in northern Colombia. Preliminary report: International Congress of Americanists XXXVI, Seville, Spain. 1966; LANGEBAEK, Carl., & DEYER, Alejandro. Archeology in the Lower Magdalena: a study of the first farmers of the Colombian Caribbean, Archaeological Reports of the Colombian Institute of Anthropology and History No (1). 2000; OYUELA CAICEDO, Augusto. Two archaeological sites with vegetable fiber degreaser in the Serranía de San Jacinto (department of Bolívar): Bulletin of Archeology, National Archaeological Research Foundation, Banco de la República, Bogotá, Year 1, No 1. 1987; REICHEL DOLMATOFF, Gerardo. Indigenous Colombia-pre-Hispanic period, in Manual of Colombian History: Bogotá, Círculo de Lectores. 1983, pp. 33-224.

¹⁹⁶ LANGEBAEK, Carl., & DEYER, Alejandro. Archeology in the Lower Magdalena: a study of the first farmers of the Colombian Caribbean, Archaeological Reports of the Colombian Institute of Anthropology and History No (1). 2000

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Around 150 AD, there is evidence of a new cultural influence represented archaeologically by the modeled painted ceramics, which is related to the societies of the Zenu and which will gradually disperse into large regions of San Jorge.

The populations with this ceramic tradition are settled on the waterways, which were accommodating their settlements in accordance with climatic changes and fluctuations in the alluvial morphology¹⁹⁷. For these occupations, in some places, the construction of crop ridges is registered, as well as the hydraulic system known for the Depression Momposina region.

For the Direct Area of study, human settlements have been established with the presence of the Tierralta ceramic complex, of the modeled-incised tradition, which would correspond to the molded-painted ceramic tradition of the middle and lower Sinú and the middle and lower San Jorge¹⁹⁸ (Santos 1985: 59), revealing correlations between cultural complexes that would extend throughout the Atlantic coast, also including the Darién Panamanian¹⁹⁹.

Archaeological explorations in the municipalities of Turbo, Necoclí and Arboletes identified and defined the El Estorbo-type site (Botiva 1980, Ibid., 1985;).

The different sites were characterized by accumulation of mollusks, shells and the aforementioned ceramics, where forms such as bowls with coronary bases, plates with pedestal or coronary supports, globular or subglobular vessels, funerary urns, loafers, pintaderas and figurines prevail. As for the lithic instruments, polished axes, net weights, polishers for ceramics, hands, blades and scrapers made in chert are recognized²⁰⁰.

In order to broaden the knowledge of the region and geographically delimit the aforementioned cultural complex, new excavations were carried out in Necoclí, in which the sites of Piatra, Cerro del Águila I and Cerro del Águila II, Villa Campania, El Cucharo, Villa Lusitania, Bellavista, Finca de los Brunel, San Andrés de los Enríquez, Caña flechal²⁰¹, all of them consisted of housing areas, *concheros* (people gathering shells), garbage dumps and contact settlements.



¹⁹⁷ PLAZAS, Clemencia; FALCHETTI, Ana; VAN DER HAMMEN, Thomas and BOTERO, Pedro. Environmental changes and cultural development in the lower San Jorge River: Gold Museum Bulletin, Banco de la República, Bogotá, Colombia. 1988

¹⁹⁸ SANTOS, Gustavo. Prehispanic settlements in the region of the Gulf of Urabá and its development until the time of the Conquest, in Maguaré, No. 3, Bogotá, National University of Colombia. 1985, p.p. 57 - 63

¹⁹⁹ RINCON, Juan Guillermo. Panama La Vieja and Gran Darién, In: Panamá Arqueología De Panamá La Vieja. 2002.

²⁰⁰ ARISTAZABAL, Pablo. Preventive Archeology La Fortuna River, Antioquia. Medellín. 2012.

²⁰¹ ROMAN, Gustavo. First campaign of archaeological and pre-Hispanic research in the municipality of Necoclí. Report fieldwork. Medellín Department of Anthropology of the University of Antioquia. 1985, pp 33.

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Returning to the El Estorbo type site, for this one we obtained two radiocarbon dates associated with the oldest strata, which were 895 and 1025 of our era. On the sites of the Eastern side of the Gulf there are no known previous developments, however:

On the western margin of the gulf, at the Capurganá site, the Modelado-incisa ceramics is superimposed and replaced by a previous complex. There are two ceramic sets, one represented by red and black polychrome paint vessels on white and the other set decorated with fine incisions: wide lines and dots, printing, engraving, brushing, serrated, cuneate, etc²⁰².

Subsequent projects related to impact archeology such as the Urra 1 Hydroelectric Project and the Rescue Archeology Project 230 KV Cerromatoso-Urabá Interconnection Line, have reported new sites as well as refining the ceramic classification, denominating of El Estorbo complex in Urabá- Tierra Alta, besides observing differences in the settlement pattern, occurring not only around riverbeds, near the sea, or the mangrove, but also towards the plain²⁰³.

What can be observed is that the different settlements of this complex are located along the water currents, however, it is not exclusive of these, because they also took advantage of diverse microenvironments of forests, savannas, mangroves and sea, in those who, through hunting, gathering and fishing, exploited the diverse resources, articulating them to an agriculture of corn, roots and tubers such as cassava²⁰⁴.

The foregoing is showing how human beings culturally construct their environment, both terrestrial and maritime, over the centuries, since the project presents the terrestrial and aquatic component.



It is of interest and because of previous projects, to be able to unveil these social constructions that human beings make of these spaces in time.

With respect to the immediate occupations of the first contacts of the first Hispanic outposts to the region, excavations are in search of settlements such as those of the city of Santa María Antigua del Darién.

²⁰² CASTILLO, Neyla. Archaeological complexes and ethnic groups of the sixteenth century in western Antioquia. Gold Museum Bulletin 20: 16-34, Banco de la República, Bogotá. 1988.

²⁰³ ESPINOSA, Amparo y CASASBUENAS, Guillermo. Prehispanic settlements in the Upper Sinú River. Department of Córdoba. Bogotá: National University of Colombia, Department of Anthropology. 1983, PP 163; ESPINOSA, Iván Darío y NIETO, Luis Eduardo. Línea de interconexión a 230 kv. Cerromatoso - Urabá. Medellín: Interconexión Eléctrica S.A. E.S.P. 1998, p. 99-160

²⁰⁴ *Ibíd.* 1998.

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Santa María de la Antigua del Darién was founded in 1510 according to the stories of Fray Bartolomé de las Casas:

“Vasco Núñez de Balboa and Martín Fernández de Enciso baptized it with this name in honor of the Virgin of Santa María de la Antigua in Seville. This Spanish settlement was gradually abandoned since 1519 when Pedrarias decided to move the city to the Pacific and found Our Lady of the Assumption of Panama. By 1526 Santa María de la Antigua was almost evicted in its entirety” ²⁰⁵ (Alzate 2011: 355).

The excavations, from the decade of the 70's of the investigator Graciliano Arcila Vélez²⁰⁶ and at the moment of Ernesto Montenegro²⁰⁷, focused in delimiting what is known as the first settlement in the continental America, which was located on the western sector of the Gulf.

Towards the Eastern sector of the Gulf the first attempt to establish a Spanish settlement towards the year of 1509, called San Sebastián de Urabá, in a place approximated to the present Necoclí²⁰⁸, was to be based.



This first post, which would be a Fort, had to be abandoned due to the constant attacks of the indigenous population, which would lead to a new search and would result in the foundation of Santa María la Antigua del Darién (See Figure No. 5.32).

²⁰⁵ ALZATE GALLEG0, Adriana. Santa María de la Antigua del Darién: a Spanish enclave in the Colombian Darién of the 16th century, in: Estrat Crític 5.Vol.1. 2011, 352-358.

²⁰⁶ ARCILA VÉLEZ, Graciliano. Santa María de la Antigua del Darién. Bogotá: Presidency of Colombia. 1986, PP 177.

²⁰⁷ MONTENEGRO, Ernesto. The darien ships: Twenty years of Spanish navigation to America (1493-1513), in Darien in the imagination of the conquerors. ED Paolo Vignolo and Virgilio Becerra. Bogotá, National University. 2011.

²⁰⁸ COCK, Juan Ricardo. From the sea to the mountain, from the mountain to the sea: Brief history of the connections of the Caribbean port of Turbo, Gulf of Urabá (1831-2009), in port cities in the great basin of the Caribbean historical vision. ED Jorge Enrique Elias and Antonio Vidal. Barranquilla, Universidad del Norte. 2013.

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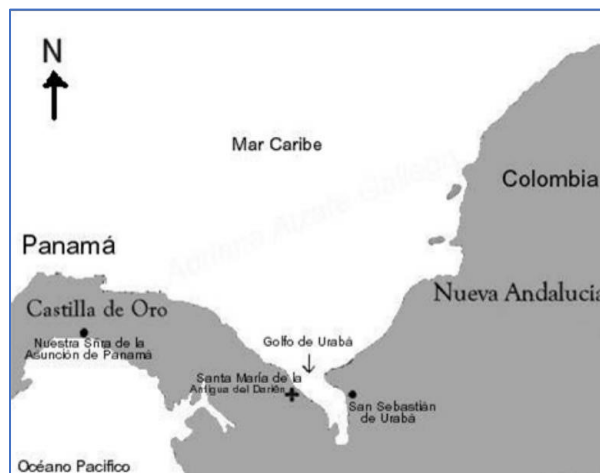


Figure No. 5.32 Possible locations of San Sebastián and Santa María

Source: Taken from Álzate 2011: 5.



Within the field of underwater archeology, we know the work done on Bahía Gloria, towards the western side of the gulf, which sought to locate and delimit the first access port to the city of Santa María de la Antigua del Darién.

For this work, we counted on the scientific advice of the Texas State University, the Bureau of Safety and Environmental Enforcement and the National Park Service, with the support of the Colombian Institute of Culture (Martín et al., 2015: 48). The projects they combined techniques with remote sensors, for the remote sensing of anomalies, as well as their subsequent verification by archaeological diving.

The objective was the detection of cultural resources in the seabed and buried in the sand, for which transects were defined to cover a wide area and, in those areas that were required, the intensity was intensified to 5 m.

In all cases, the idea was to recover as much magnetic information as possible in order to have accuracy after processing the information with the software (SonarWiz Chesapeake Technology 5.0). The transects of the magnetic prospecting were carried out at an average speed of 4 knots and the distance between the lines was defined at 15 m. Of course, this distance varied slightly due to currents, waves, winds and, of course, human error (Martín et al., 2015: 49).

Although a total coverage of the bay was made, the results were negative since it was not possible to identify any type of archaeological vestige, reason why Bahía Gloria would not correspond to the first port in the continental area.

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Like the prospecting, the review of historical sources does not account for detailed descriptions of the port of the ancient city:

The analyzes of satellite photography show some interesting features, in a quadrangular form, towards the southeast of La Gloria Bay, which could correspond with these old structures. Therefore, it is intuited, by the few descriptions, that the port was on the Atrato River, or very close to it and not on the coastline. It is striking that no old map mentions the port, which should be a geographical reference for the maps of the time. Even in those of the 18th century, mention is still made of San Sebastián de Urabá and Santa María de la Antigua del Darién, leaving Bahía Gloria aside, whose first mention as a Spanish port dates back to the middle of the last century, with the expedition of the King Leopold of Belgium (Ibid. 2015: 49).

For his part, Ernesto Montenegro mentions that it is likely that the port was built by taking advantage of an island parallel to the coast, through a linear deposit of stones, which would have allowed to link the coast with the island and the closure of the area of the port ²⁰⁹.

The same author mentions that although it is not possible to find vestiges of boats belonging to Pedrarias Ávila, if it can be possible to identify complete or fragmentary remains of some boats. In the table annexed in his work, one can observe the situation of the Pedrarias fleet, which shows how the majority returned without some of their parts, others stayed at the transport service between Urabá and the islands, for trade in the Indian and another as Santa Maria de la Merced would be shipwrecked near the Darién²¹⁰.

The inventory of shipwrecks carried out by Romero and Pérez²¹¹, evidences the presence of 3 unknown ships, 2 *naos* (small ship) and a galleon. The causes of these shipwrecks had been due to actions of nature and pilot errors (See Table No. 5.53)



Table No. 5.54 Shipwrecks in proximity to the Gulf of Urabá.

NUMBER		1
YEAR		Early 16th century
PLACE		Gulf of Urabá
ROUTE		Unknown
SHIP		Unknown
CREW AND/OR PASSANGERS		The ship belonged to Cristóbal Guerra
CARGO		Unknown.

²⁰⁹ MONTENEGRO, Ernesto. The darien ships: Twenty years of Spanish navigation to America (1493-1513), in Darien in the imagination of the conquerors. ED Paolo Vignolo and Virgilio Becerra. Bogotá, National University. 2011

²¹⁰ Ibid. 2011: 211-212.

²¹¹ Romero, F. & Pérez, J. F. Shipwrecks and seaports in the Colombian Caribbean. Mexico: Siglo Veintiuno editores, s.a. de c.v. 2005.



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CAUSE	Unknown
REFERENCE ON FILE	Unknown
BIBLIOGRAPHIC REFERENCE	Ernesto Hernández. Urabá Heroico. Bogotá: Library of Colombian Authors , 1956, p. 32.
OTHERS	Apparently, an expedition belonging to Cristóbal Guerra arrived in a vessel coming from Cartagena to give notice to Juan de la Cosa that the ship capitana of Cristóbal Guerra had been shipwrecked. In addition, the few survivors of the accident had gone in search of the first expeditionaries with the misfortune of also having been shipwrecked within the gulf.

NUMBER		3
YEAR		Early 16th century
PLACE		Punta Caribana
ROUTE		Toward the Gulf of Urabá
SHIP		Unknown
CREW AND/OR PASSANGERS		In command of Encino
CARGO		Unknown
CAUSE		Impact against some rocks due to a storm
REFERENCE ON FILE		Unknown
BIBLIOGRAPHIC REFERENCE		Ernesto Hernández Urabá Heroic Bogotá: Library of Colombian Authors, 1956, p. 127
OTHERS		Apparently in the expedition that towards Enciso by the coasts of New Andalusia, today Department of Bolívar and Antioquia; When arriving at Punta Caribana, a strong sea wind violently launched the captain ship of Enciso against some rocks and mangroves, with such bad luck that the ship opened in the middle.

NUMBER		4
YEAR		1504
PLACE		Gulf of Urabá
ROUTE		Apparently they were exploring the Colombian coasts
SHIP		Unknown
CREW AND/OR PASSANGERS		Commanded by Juan de la Cosa. There was a crew of 200 men on the ship.
CARGO		Unknown
CAUSE		Strong storm
REFERENCE ON FILE		Unknown
BIBLIOGRAPHIC REFERENCE		Robert Marx. The search for sunken treasures. Toronto: Key Porter Books, 1993, p. 427.
OTHERS		



NUMBER		6
YEAR		1513

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PLACE	Apparently in the vicinity of Veragua
ROUTE	Santo Domingo-Gulf of Urabá
SHIP	Unknown
CREW AND/OR PASSANGERS	Apparently there were about 50 or 60 people on the ship, among whom are: Álvaro de Aguilar, a native of the city of Toledo; Antón de Salamanca, a native of the city of Segovia; El Ternero and Joan Calderón
CARGO	Goods (Unknown)
CAUSE	Lost and later grounding on the coasts of Tierra Firme
REFERENCE ON FILE	Gonzalo Fernández de Oviedo. General and Natural History of the Indies
BIBLIOGRAPHIC REFERENCE	Gonzalo Fernández de Oviedo. General and Natural History of the Indies. Madrid: Editions Atlas, 1959, volume V, book L, chapter III.
OTHERS	The chronicle refers to a ship that was shipwrecked on the coast of Tierra Firme, and how the sailors in charge of that ship fled in a boat, leaving the rest of the crew helpless. On the other hand, the survivors of the accident helped by the natives of the area re-used the boards of the shipwrecked ship and made a nacelle, with which they managed to enter the sea again until they were saved by another ship heading to the Darién. .

NUMBER	8
YEAR	1513
PLACE	West of the Gulf of Darién
ROUTE	Santo Domingo-Gulf of Darién
SHIP	Nao Unknown
CREW AND/OR PASSANGERS	Unknown
CARGO	Goods
CAUSE	Lost by pilot error
REFERENCE ON FILE	Unknown
BIBLIOGRAPHIC REFERENCE	Robert Marx. The search for sunken treasures. Toronto: Key Porter Books, 1993, p. 427.
OTHERS	

NUMBER	33
YEAR	1600
PLACE	Gulf of Urabá
ROUTE	Isla Margarita- Unknown
SHIP	Unknown galleon
CREW AND/OR PASSANGERS	Apparently she was commanded by Captain Bodes
CARGO	Pearls
CAUSE	Unknown
REFERENCE ON FILE	Unknown
BIBLIOGRAPHIC REFERENCE	Robert Marx. The search for sunken treasures. Toronto: Key Porter Books, 1993, p. 429.

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OTHERS	
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Source : Romero and Pérez (2005)

Goals

- General

The objective of this project is to design an Archaeological Management Plan that contemplates the activities for the prevention and mitigation of the destruction of possible areas of archaeological interest, caused directly and indirectly by the execution of the project.

On the other hand, we will try to provide specific information on the type of archaeological materials and the characteristics of the archaeological contexts that may be identified, which will be useful to nourish the body of existing data for the area, as well as to carry out future research that requires comparative analysis between sites and, in this way, enrich some of the archaeological discussions raised at local and / or regional level.



- Specifics

- Locate and identify the archaeological and cultural evidence that may exist in the underwater and terrestrial context of the area where the port structure will be built, based on an identification of potentially archaeological zones, thus generating a zoning based on the existing archaeological potential.
- Record and characterize the archaeological findings found in the intervened area, from a historical perspective, taking into account the anthropic, natural and oceanographic components.
- Propose the conservation and protection measures necessary for the preservation and management of archaeological structures and elements, which due to their formal characteristics require an Archaeological Management Plan.

Methodology

➤ Bureau work

As a first stage for an adequate identification, evaluation and protection of potential submerged cultural resources, a review of the archaeological and historical

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background available for the geographical area where the project will be located is carried out. This collection includes the following main categories:

- Terrestrial and submerged prehistoric sites
- Historic land settlement and floods
- Remains of submerged pre-Hispanic vessels
- Wrecks or remains of wrecked historic vessels
- Marine and terrestrial war scenarios
- Decontextualized archaeological artifacts



This helps to characterize the modification of the area from a historical perspective, taking into account the anthropic, natural and oceanographic components. In the same way, the processes of maritime territorializing and the configuration of maritime cultural landscapes can be determined.

Geophysical prospecting

An archaeological survey will be carried out through a geophysical survey for a better archaeological coverage of the seabed; A method of prospecting by remote sensors will be applied, through the use of a Side Sweep Sonar (SBL) and a Magnetometer. The result of this survey will be reflected in a series of acoustic images with anomalies (SBL) and magnetic anomalies (Magnetometer), which will be inspected visually by archaeological diving.

In the case of maritime archeology, given the obvious restrictions posed by direct access to the marine environment through diving operations, methods with remote sensing have played a relevant role in efforts to systematize the archaeological sampling of submerged surfaces.

The application of geophysical technology with a view to the non-intrusive detection and evaluation of archaeological sites of submerged prehistoric archaeological sites and shipwrecks is a research strategy that has consolidated and become standard during the last decades.

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Indeed, currently electronic tracking methods are frequently used for the archaeological coverage of large marine areas²¹² and represent, at the same time, an efficient and reliable method of pre-intrusive evaluation of specific sites²¹³.

For the Prospecting, transects or tracking lines will be designed 30 m apart, for areas with depths less than <10 meters, while for areas with depths greater than > 10 meters lines of 50 meters distance will be implemented each.

For the dredging area and facilities of the future dock, a rectangular polygon with its respective vertices (V1, V2, V3, V4) will be designed to facilitate geophysical prospecting and completely cover the affected area. In addition, a transect will be designed with the vertices V5 and V6 for the section of the conveyor belt that joins the pier with the mainland (see Figure No. 5.33)

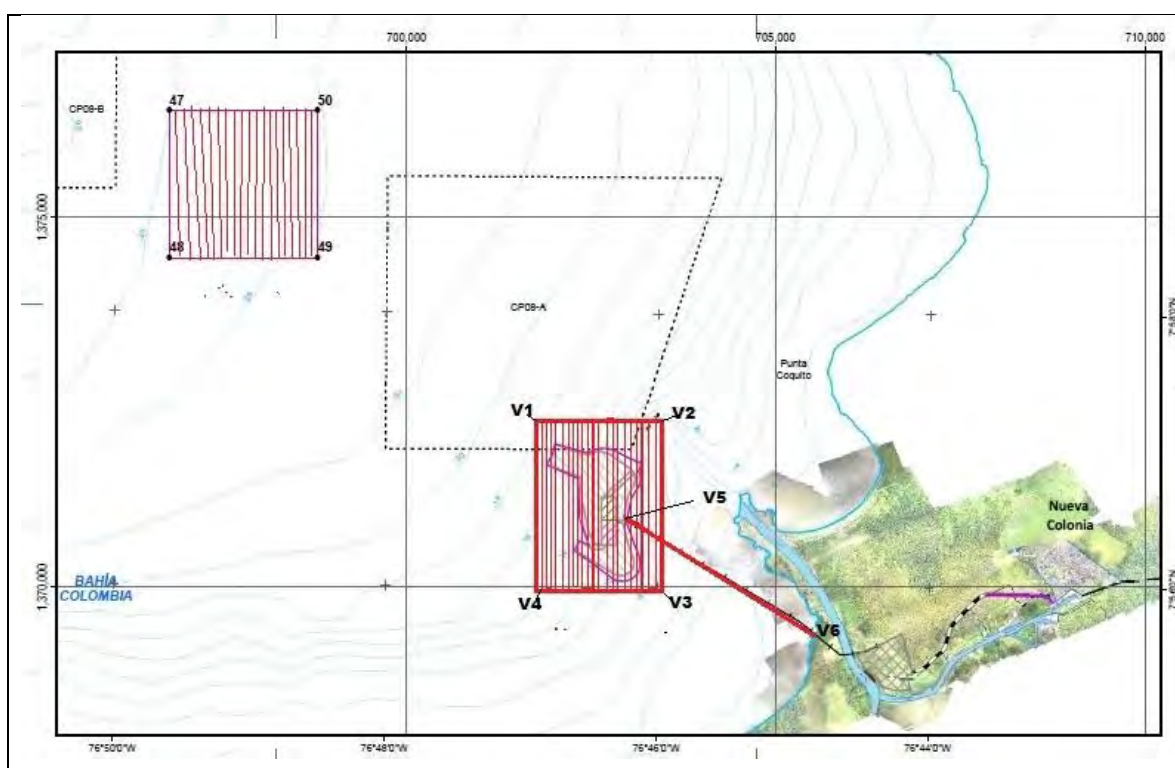




Figure No. 5.33 Transect design for the study areas

²¹² BABITS, L.E. y H. VAN TILBURG (eds.) Maritime archaeology: a reader of substantive and theoretical contributions. Plenum Press, New York. 1998; BOWENS Amanda. Underwater Archaeology. The Nas Guide to principles and practice. Second Edition. UK, Blackwell publishing. 2009; CATSAMBIS, A. B. FORD y D. HAMILTON (eds.) The Oxford Handbook of Maritime Archaeology. Oxford University Press, New York. 2011; DELGADO, J.P.(Ed.). Encyclopaedia of Underwater and Maritime Archaeology. British Museum Press, London. 1997.

²¹³ ARNOLD, J. B. III. Magnetometer survey of La Salle's ship the Belle. The International Journal of Nautical Archaeology, Vol. 25 (3). 1996, 243 - 249; QUINN, R., J.M. BULL, J.K. DIX y J.R. ADAMS. The Mary Rose site-geophysical evidence for palaeo-scour marks. The International Journal of Nautical Archaeology, Vol. 26 (1). 1997, Pp. 3 - 16

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Source: Project archeology team

Equipment to be used



- Imagenex Side Scan Sonar, SportScan model, with frequencies of 330 kHz / 800 kHz. With this equipment, the entire area under study will be swept between the depths of 10 - 30 meters, using a frequency of 330 kHz in the coverage range of 100 m total (50 m for each sonar band). In this way, 100% of the area to be surveyed will be covered (See Figure No. 5.34).

- Magnetometer Proton 4, JW Fishers. Proton 4 has a gamma sensitivity, the maximum practical sensitivity for a towed magnetometer. Its maximum capacity of the range of 1500 feet (NT: About 450 meters) on each side (3000 feet (NT: About 900 meters) of total coverage for a very large target) allows it to cover a wide area quickly and completely. The detection range is not affected by the medium between the metal detector and the metal target. Operation does not change if detected through air, water, silt, sand, or solid coral (See Figure No. 5.34).

- Echo sounder with function Side scan image, model Humminbird 899ci HD SI Combo. With this equipment, the entire area under study will be protected between the depths of 1 - 10 meters, the range of coverage will be 15 - 30 meters for each band. This equipment has the latest technology of Side Scan and Down Scan at the same time, to get the best possible view of structures, both below and by the sides of the boat. It has triple selection of frequencies that will be modified to obtain the best possible image; Frequencies 83kHz / 200kHz / 455kHz (See Figure No. 5.34).

- Navigation software Hypack survey, which will follow in real time the route made by the boat, on each of the predefined lines in the grid included as a layer on the map base used in the area. This monitoring carried out by the pilot allows to maintain or immediately correct the course of the vessel during the recognition of each line (See Figure No. 5.34). The post-processing in Hypack will allow us to analyze and project the sonographs obtained with the SSS in a mosaic, which consists of the projection of the seabed of the total area of the prospective project.

- The tracking data will be geo-positioned through a Global Positioning System (DGPS) and an echo sounder with transducer will be used for the bathymetric information during the tracking.

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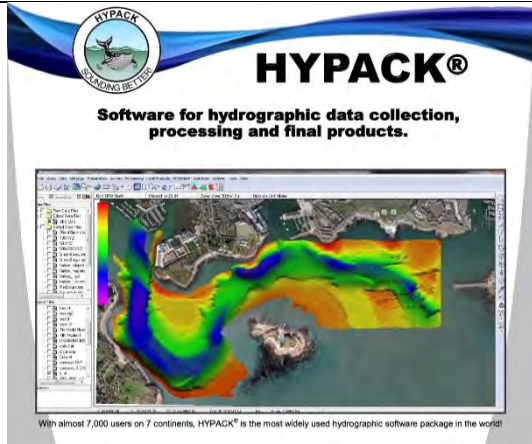
	
Imagenex Side Scan Sonar , model SportScan	Magnetometro Proton 4, JW Fishers
	
Echo sounder with function side scan image, model Humminbird 899 ci HD SI Combo.	Navigation software Hypack survey



Figure No. 5.34 Equipment for archaeological prospecting

Source: Project archeology team

Archaeological diving

Later and with the objective of verifying or discarding the nature of the geophysical anomalies identified during the prospection, processed and interpreted archeologically, archaeological diving operations are planned.

A standardized procedure of verification of the anomalies or individualized objectives is carried out, which consists of the fixation of its central position by means of a dead one with descent point and a geo-positioned buoy by GPS. The archaeological diving operations consist of visual inspections of the anomalies made by teams of 2 archaeologists - divers equipped with autonomous diving equipment.

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Once a target has been set, the dive partner descends and proceeds to its relocation using a circular search technique with progressive radii, until reaching a maximum of 20 m radius around the established point (See Figure No. 5.35). Any anomaly is recorded and documented by photography, video or drawing on record cards.

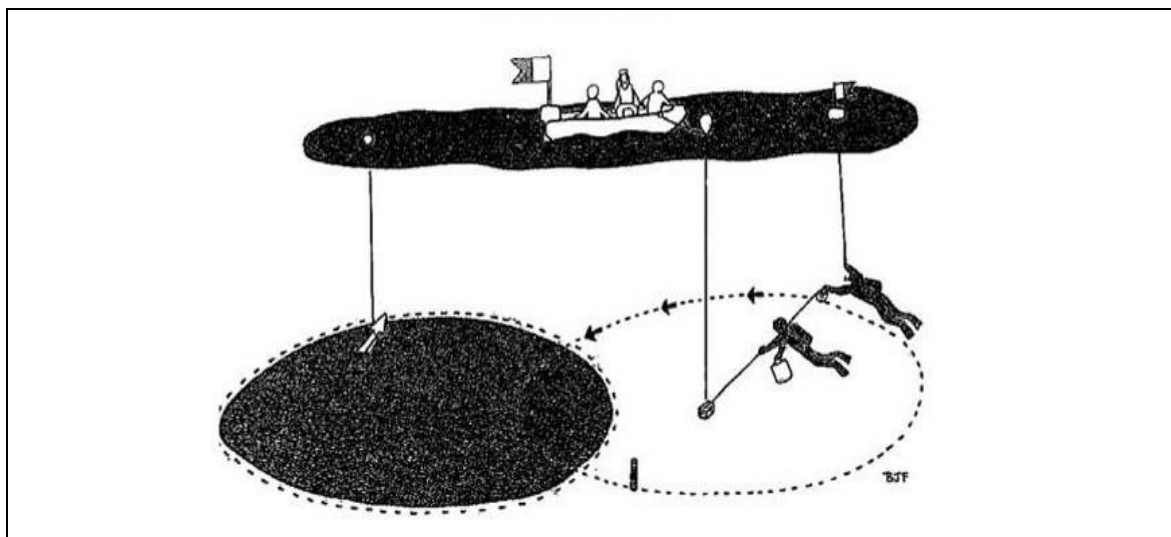




Figure No. 5.35 Circular search through archaeological diving.

Source : Tomado of Bowens 2009.

In turn, corridors are made in areas with archaeological potential, in order to prospect visually in conjunction with the manual metal detector. These corridors are designed with nylon ropes and anchorages at their ends which are positioned with GPS.

The divers are separated by 2 to 5 meters according to the visibility and conditions of the sea. The study as a whole is developed considering the dispositions and standards established both in the International Charter for the Protection and Management of the Underwater Cultural Heritage (Sofia Charter, 1996) issued by the International Council on Monuments and Sites, as the later Convention for the Protection of the Underwater Cultural Heritage adopted by UNESCO (Paris, 2001), as well as Decree 1698 of 2014, by means of which Law 1675 of 2013, relating to the Submerged Cultural Heritage, adopted by the Ministry of Culture, was regulated in Colombia.

The methodology accounts for the configuration of the maritime landscape, which integrates the different components of a territory that shares two media (land and sea). This allows to understand the spatial distribution of the archaeological record and the attributes and interventions of the environment. As a final result, the Archaeological Management Plan is formulated.

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Terrestrial prospecting

Taking into account the characteristics of the landscape, the archaeological background of the area of interest of the project, as well as the nature of it, the following is proposed to implement a methodology that manages to cover the total area of said project.

First, a detailed study is made of the cartography provided in which the area covered by the project is highlighted, highlighting the topographic zones and the main geographical features, as well as the hydrographic networks that make this area a rich resource, in which the pre-Hispanic populations settled down over time.

Our field study, documentation and laboratory, is carried out by an archaeologist and two badueans during 5 days with daily days from 7 am to 5 pm. This duration depends on logistics issues, the availability of badueans and the ease of access to the areas where the right of way is located.

Since the corridor of the road to be built has dimensions of 20m in width and 855m in length, a linear survey is carried out by taking soundings every 10m on the central axis of the line with dimensions each of them 45 x 45 x 70cm (See Table 1).

To justify this methodological design, it is taken into account that the spacing of the sounding wells, as well as their dimensions and depth are the same as those implemented in the different projects that have been developed in the vicinity of the study area.

The above is proposed in order to be able to establish and compare the results of the prospecting that is being proposed, with the data and field information of other research carried out in the area.

For each survey, regardless of whether archaeological material appears or not, a registration form is drawn up that follows a consecutive numbering and where a reading exercise of the observed stratigraphy is recorded, in order to determine the degree of alteration of the soil matrices. which may contain archaeological materials (See Figure No. 5.36). In places where the soil is not covered with grasses or vegetation, and it is possible to observe evidences at a glance, surface collections are made, with the right of way as axis. On the other hand, profiling exposed on the tracks and other sectors where they have made cuts of land for civil works.



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Figure No. 5.36 Terrestrial archaeological intervention area.
Source: Produced by Aqua & Terra Consultores Asociados S.A.S

For the present license does not contemplate the accomplishment of archaeological cuts or excavations in area. As long as the need for larger excavations is seen, in order to broaden the archaeological knowledge of the prospected sector, the respective suggestion will be made in the PMA resulting from the survey, indicating exactly the place of the find to be excavated and the observations on the spatial context in which it is located.

In case of making findings of cultural material, all these will be washed and marked according to the well of sounding or to the superficial collection of where they come from. Once this procedure is done, it will be classified as either ceramic, metal, glass and / or bone. Laboratory work will begin during the field days to make the best use of time.

Once the classification is made, the information of the surveys will be systematized in terms of materiality and temporality. This information will be located geographically in the plan of the right-of-way corridor and an attempt will be made to make an overlay of the archaeological map with others such as slope, physiographic and environmental.

The foregoing will be established in order to propose the zoning of the archaeological potential through the creation of a GIS that registers the archaeological density (size

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of the area vs. quantity of vestiges), materiality, temporality and degree of alteration by contemporary activities.

For the final construction of the management plan, an inventory is made of all the assets that are affected, in consideration of the zoning and its location, degree of alteration and density.

The methodological strategies will be defined to avoid a loss of the information that the evidences and the material goods in themselves can contribute, by means of different techniques of excavation. This is intended to pose the subsequent archaeological actions, whether rescue and / or monitoring. Finally, the measures of custody of the material, museography and dissemination of results will be proposed, in case of finding patrimonial assets.

Approach and Justification



The present study contemplates the realization of an underwater archaeological baseline for the "Formulation of the archaeological management plan for the study of environmental impact for deepening dredging and the construction of the port" at the request of the Puerto Bahía Colombia de Urabá S.A.

At the same time, the prospecting of a terrestrial section that will occupy the new rectified track for a terminal is contemplated.

According to the environmental impact studies, volume I, II and III. "CONSTRUCTION AND OPERATION OF A SOLID BULK PORT TERMINAL", elaborated in July 2010 by Puerto Bahía Colombia de Urabá SA, an archaeological study is not justified since "DIMAR does not consider the Colombia Bay as of interest for shipwrecked species and less even the mouths of the Leon River, recognizing that this area in particular, was not the object of the entry of galleons during the periods of the conquest "(Araújo Ibarra & Asociados SA Page 37).

On the other hand, they conclude that; "The area of the Project on land corresponds to a recently emerged area derived from sedimentation processes caused by the high sedimentary load of the León River and the disposal of dredged material from the León River and the Nueva Colonia canal.

The following figure shows the lots in which dredged product material is available (Annex 5.3.7.3).

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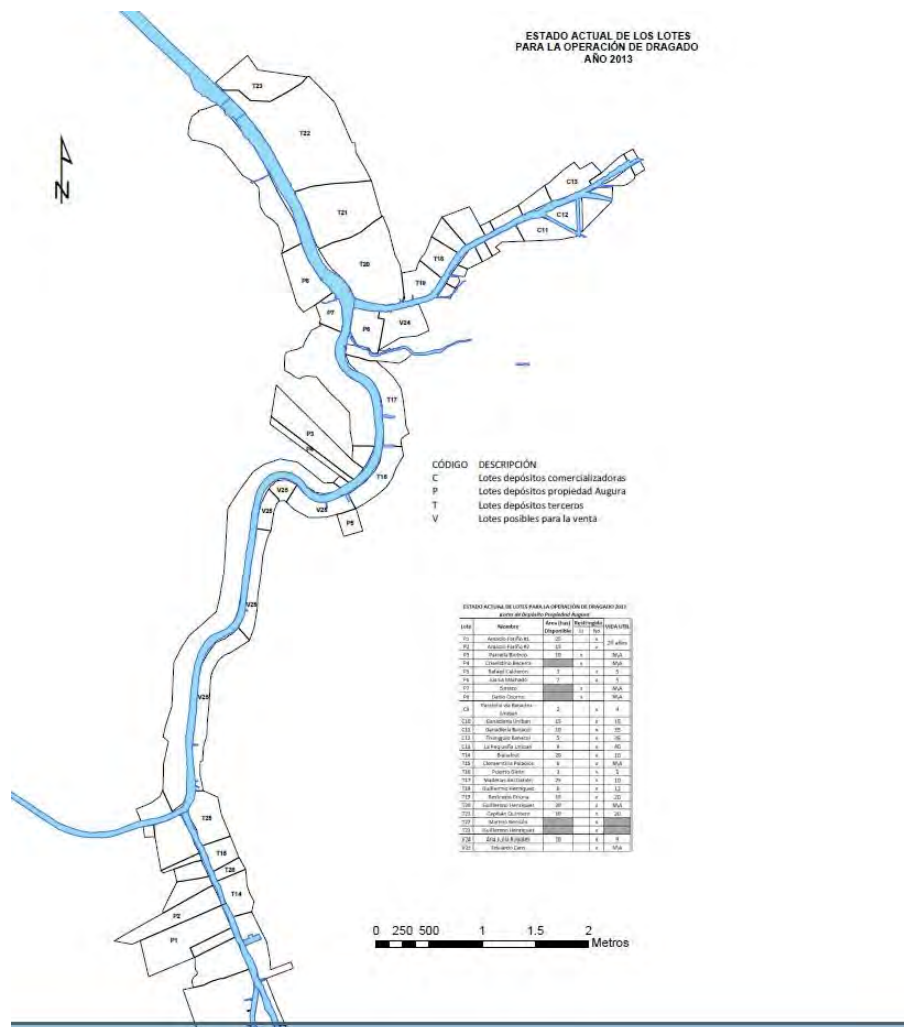




Figure: Properties used as áreas of dump

Source: Produced by Aqua & Terra Consultores Asociados S.A.S

For this reason, on these swampy soils or with prolonged flooding (according to the classification of soils of the IGAC) and given the intensity of the floods in the area, it is not possible to find archaeological vestiges of pre-Hispanic communities in the area of interest " (Araújo Ibarra & Asociados SA Page 37).

In spite of this, ICANH was requested by means of official letter 0243 regarding the requirements of preventive archeology applicable in feasibility studies of "some port activities (sic)" to be carried out in Turbo, Antioquia.

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The response was very clear on the part of the archeology group, based on Law 397 of 1997, article 11, modified by Law 1185 of 2008, which implies requesting a license for a preventive archeology study and obtaining an approval by the of the ICANH of an Archaeological Management Plan before the start of the work.

Likewise, the existing legislation on submerged cultural heritage was taken into account (Article 9, paragraphs 1 and 2 of Law 397 of 1997). As well as the law 1675 of 2013 by means of which articles 63, 70 and 72 are regulated.

Therefore, this project is framed within the studies related to the so-called preventive archeology, which seeks to mitigate the impact that the execution of infrastructure works on archaeological heritage may have (ICANH, 2010).

The objective of this type of work is to preserve, protect and disseminate the importance of archaeological heritage and cultural assets. This type of initiatives is based on a legal framework supported by the policies and laws promulgated by the Political Constitution of Colombia, in addition to the guidelines proposed by the Colombian Institute of Anthropology and History -ICANH-.



This special protection regime has a series of technical and legal requirements, which must be strictly followed to prevent the destruction of the archaeological heritage when there are infrastructure works or exploration activities. For this case, Law 397 of 1997, modified by Law 1185 of 2008 clearly states that:

"In the construction projects of transportation networks of hydrocarbons, mining, reservoirs, road infrastructure, as well as in the other projects and works that require an environmental license, equivalent registrations or authorizations before the environmental authority, as a prerequisite to its granting, it must be elaborated a program of preventive archeology and an Archaeological Management Plan must be submitted to the Colombian Institute of Anthropology and History without whose approval the work cannot be advanced "(Law 397, Article 11, modified by Article 7 of Law 1185).

Likewise, this Preventive Archeology Program is presented within the regulatory framework of Decree 1076 of 2015, for purposes of obtaining the Environmental License, in accordance with Law 1185 of 2008.

These investigations are divided and developed in several phases; each one has several control points and methodological guidelines, which are established by ICANH regulations.

For the present case, the archaeological prospecting, both underwater and terrestrial, aims to perform the sampling on the area that will be intervened by

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industrial infrastructure works, seeking to identify, characterize and recover the archaeological evidence that can provide information to the studies advanced about the problem of human occupations both pre-Hispanic and later in the area of the Gulf of Morrosquillo and in general, the region of the Colombian Caribbean and thus, to formulate a Management Plan according to the potential of the area.

Study área

The port project of Puerto Bahía Colombia de Urabá S.A. It is located in the village of El Canal in the Nueva Colonia township, municipality of Turbo, department of Antioquia, on land owned by the society, with an area of 38 hectares bordering the east with the León River, very close to its mouth in Bahía Colombia, Gulf of Urabá (1,500 m), and to the south with the channel of Nueva Colonia. Its average height is 14 m above sea level.



General location of the study

The Project consists of a multipurpose port for cargo handling export / import of containers, solid bulk, liquids and import terminal of vehicles to be installed in the vicinity of the Colombia Bay in Urabá, mouths of the León River in the municipality of Turbo (Antioquia). The projected loads in the short and long term (2018 and 2030 respectively), according to the load analysis of CK Americas (2010), are 2,894,540 Ton and 6,696,991 Ton, respectively. The project has three main components (See Figure No. 5.37).

a) Dock of 640 m long and 200 m wide, located about 4 km offshore in the Gulf of Urabá. This structure will support several equipment including gantry cranes, RTG type yard cranes for container handling and container loading. This structure is planned to be constructed of reinforced concrete and supported on metallic steel piles.

b) To join the facilities at sea and on the premises, a covered conveyor belt will be built, mounted on a walkway of approximately 3.75 km x 10 meters wide, supported on piles (groups of 3 piles every 20 m), at a minimum height of 8 m, which will ensure the transfer of the grains to be unloaded from the ships to the storage silos.

c) In land area associated with the construction of the Terminal, it is planned to improve a road of 850 meters x 20 meters at the height of the urban area, to avoid affecting the nearby residential area.

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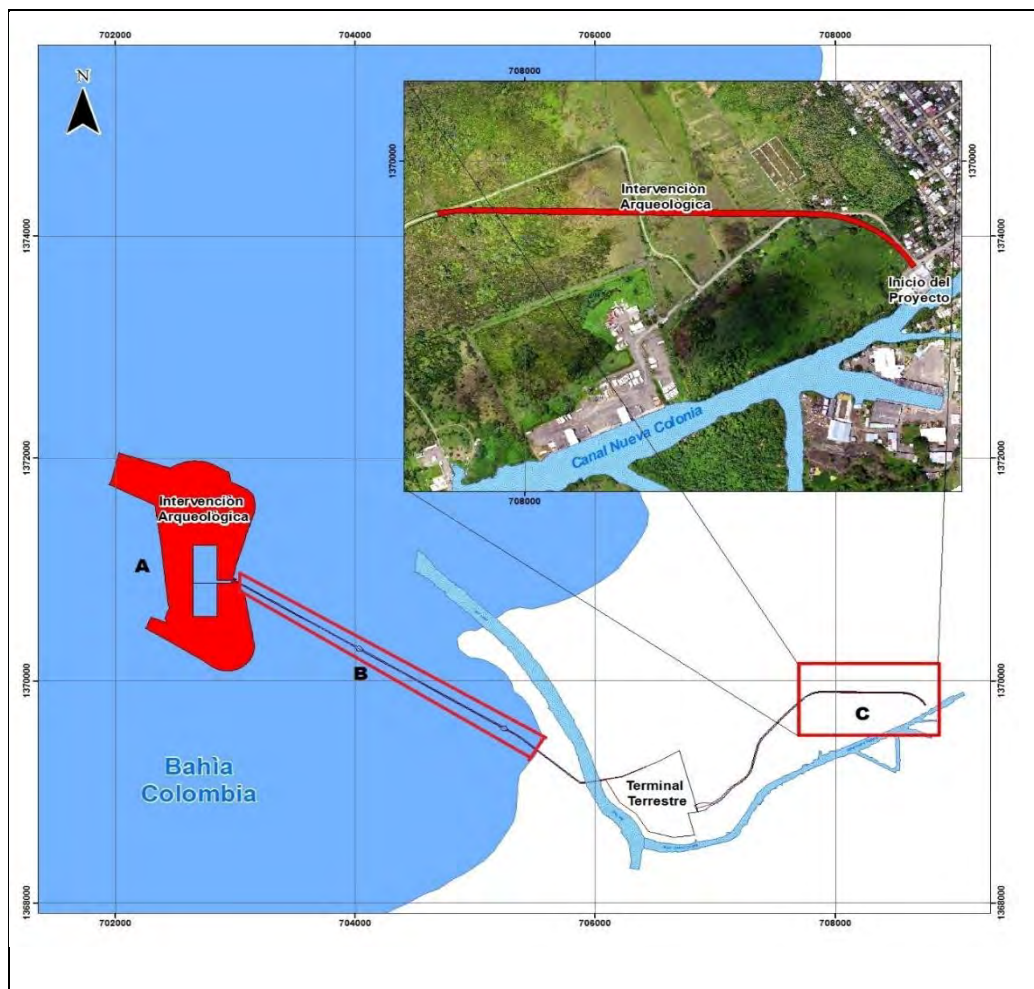




Figure No. 5.37 Areas of archaeological study.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

Dredging areas

The dock of the new Solid Bands Port Terminal of Bahía Colombia was designed to be built in the extreme south east of the anchoring area, established by the DIMAR Maritime General Directorate, for loading operations in anchoring of banana vessels (111 Araujo Ibarra & Asociados SA)

Based on the Nautical Chart COL 412 Gulf of Urabá (See Annex 06), it was established that this water mirror has an average depth of 16 meters, reduced to the Medium Level of Low Water in Psychiatry (MLWS), depth that will allow it to serve Handymax and Panamax bulk vessels of up to 45,000 DWT, so that in its

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construction stage it is not planned to carry out any type of dredging to deepen the area.



The maintenance dredging of the riverbed of the León River, especially at its mouth, is being executed with stationary hydraulic dredges that suck the sedimentary material and pump it through the pipeline to the non-confined dump areas located on both sides of the river. frontal delta, causing the sedimentary dikes to penetrate more towards Bahía Colombia, promoting an important sedimentary process in the southeast sector of the bay, which is reinforced by the contribution of sediments from the coastal drift current, a process that has affected the depth of the east and south boundaries of the anchoring area, assigned by DIMAR for banana port operations

If depth loss is established, the Terminal must schedule and perform maintenance dredging or relict work, with the purpose of recovering the depth of its maneuvering and berthing areas, for which an Environmental Record will be established in the Environmental Management Plan to give proper management to this activity (See Figure No. 5.38).



Figure No. 5.38 Polygon of dredging area and installation of the dock.
Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

Dump

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It has an approximate area of 324 ha and is at a maximum depth of 24 meters (See Figure No. 5.39). Here a prospection will be carried out using SSS and magnetometer to verify or discard submerged patrimonial elements.

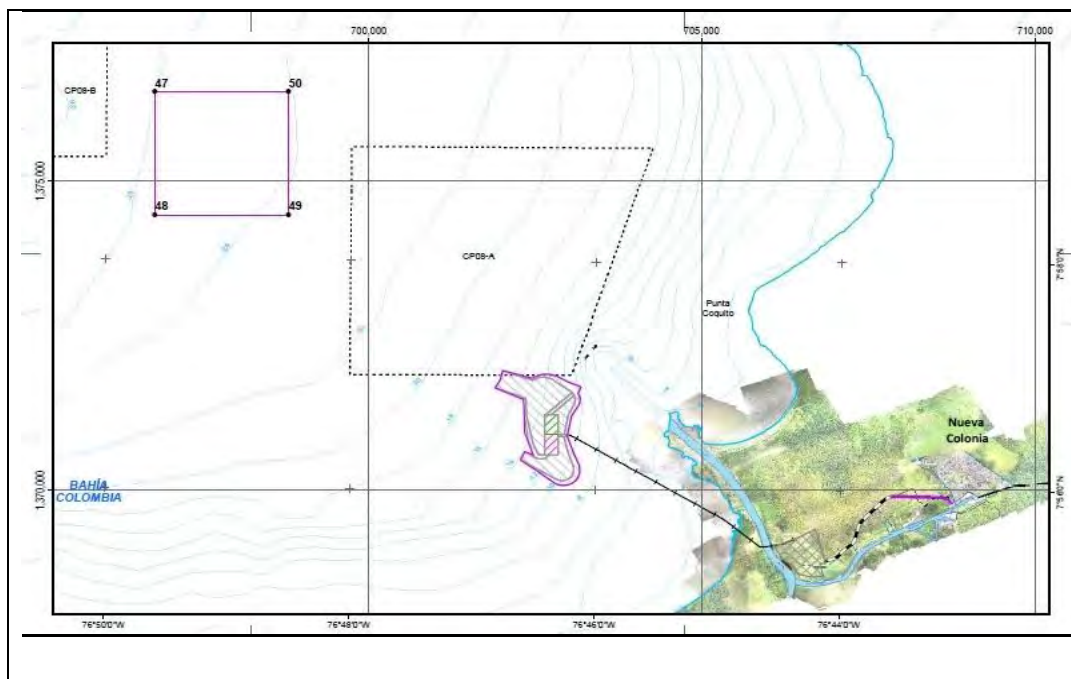


Figure No. 5.39 Dump area polygon.

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S

5.3.7 Political- organizational component

5.3.7.1 Political-administrative aspects

This dimension aims to describe and identify the social and political actors that interact in the project area that represent the existing power structure, analyzing the degree of conflict that could be generated by their interaction with the rest of society.

5.3.7.2 Governance:

In the Darien Coastal Environmental Unit there is no specific administrative structure or institutional framework that currently allows for a unitary approach and a systematic treatment of the coastal problem of the Environmental Unit, considering that this is a new issue within the national context. The management of some spaces

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within the coastal zone, especially the marine and coastal areas (beaches, low tide lands), are under the jurisdiction and competence of national, regional and local institutions.

The main challenges of the Darien Coastal Environmental Unit point to inter-institutional coordination, inter-municipalities and interactors; the connection with the coastal development policies and lines of the country, compliance with current regulations, with an emphasis on local development issues, decentralization and institutional strengthening²¹⁴.

The capacity of institutional management in the UAC-Darien is rated as average.

This at first sight, would allow to establish that the degree of coordination is not adequate among the entities involved to resolve conflicting situations.

If we take into account the geographical sectorization present in the zone (Urabá Antioqueño and Darién Caribe), the capacity for Urabá Antioqueño would be average while for Darién Caribe it would be medium low²¹⁵.

It faces problems in the first place, due to the lack of a coastal development policy with a long-term vision, the lack of coordination between the different plans from the national, regional and local level and a policy of cooperation and integration towards the components of the Coastal Environmental Unit. In addition to the lack of a space for interaction between the different private, social and administrative actors in relation to the coastal zone.

In this regard, the problematic of the UAC-Darien, seen from the governance, is presented in accordance with the following components:

The generalized problems that reflect this component are:

- ✓ Deficiencies in institutional capacity and poor inter-institutional coordination.
- ✓ Deficiency in the control and surveillance of marine and coastal resources.
- ✓ Little local political will.

²¹⁴ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p 501.

²¹⁵ Ibid.

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- ✓ Insufficient financial resources.
- ✓ Deficiencies in local scientific research.
- ✓ Deficient operability in the regulations.
- ✓ Poor handling of information.
- ✓ Deficiency in decision making and conflicts of competences.

However, in terms of leadership there is a strength for the region of Urabá Antioqueño with the Government of Antioquia, which has credibility in the execution of its decisions, a situation that favors the accompaniment to the various processes and projects, since its participation is considered guarantee stamp.

It must be taken into account that the process of institutional strengthening is a process of continuous updating, adaptation and modernization that must be maintained as a permanent institutional purpose²¹⁶.

The administrative management in the municipal mayor's office of Turbo is in a situation of delay with respect to the national advance in the processes of administrative development, concretized in the application of the law 872 of 2003 related to the system of management of the quality, oriented to the modernization and improvement of the efficiency of territorial entities.

Likewise, the implementation process Standard Internal Control Model (MECI) is delayed, since it is implemented only by 65%, due to the poor commitment of the officials in its application, therefore, there is a management of low efficiency and efficiency²¹⁷.



In relation to fiscal and financial management, the municipality of Turbo has had a deficient performance due to the low collections obtained during the last years, since in 2008 current revenues fell from \$ 12,601 million to \$ 10,284 million, and in 2011 it dropped to \$ 10,100 million. This bad financial behavior was due to the lack of tax management²¹⁸.

In the evaluation of the integral performance carried out by the DNP and the Directorate of Departmental Planning, in the last 4 years the municipality of Turbo

²¹⁶ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p 502-503.

²¹⁷ Development plan 2012 to 2015. Returning the way to progress. Turbo. P.85

²¹⁸ Ibid.

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appears below the 100th position in the municipal ranking, which shows problems in the management of the development, administrative, fiscal and financial²¹⁹.

5.3.7.3 Political Aspects

The electoral potential of the turbo municipality is 75,773 people. 43,874 voters participated in the last mayoral and council elections. The elected mayor was William Palacio Valencia, belonging to the you are Turbo Movement, with 16,368 corresponding to 39.63% of the votes, beating his immediate contender from the Liberal Party, Ariel Angulo Palacio, with 10,247 for 24.81% of the vote.²²⁰

The Municipal Council was formed for the period 2012-2015 at the time of the elections of October 31, 2011, in force on the date in accordance with the following Table No. 5.54.



Table No. 5.55 Turbo Municipal Council

Town Council	
Benancio Morales Zúñiga	Afrovides Party
Benilda Maestre Barrios	Liberal Party
Betty Isabel Perez Ramos	Radical Change
Carlos Alberto Beer Valencia	Party of the U
Danilo Santizo Bonilla	Party of the U
Eladio Rivas Machado	Afrovides Party
Elizabeth García Bejarano	Afrovides Party
Emelides Muñoz Mesa	Conservative Party
Héctor Hernán Berrocal Durango	It does not report
Heriberto Manuel Anaya Payares	Radical Change
Hernán Rovira Moreno	Conservative Party
José de la Rosa Ortega Ramos	National Integration Party
Luis Cabrera Santa Cruz	Liberal Party
Luz Mary Romero Días	Liberal Party
Mariela Ayala Mejía	Afrovides Party
Uriel Ortega Quiñonez	National Integration Party
Jimmy Orejuela García	Party of the U

Source: <http://www.turbo-antioquia.gov.co/concejo>

²¹⁹ Ibid.

²²⁰ Info Municipal Council of Turbo 2011 [Online] <http://www.turbo-antioquia.gov.co/> [retrieved on August 15, 2015]

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5.3.7.4 Institutional presence and community organization

The municipality of Turbo, adopts its administrative political regime and presents the following structure (See Figure No. 5.33).





Figure No. 5.40 Administrative Structure of the Municipality of Turbo

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S. 2015

The municipality of Turbo, due to the social problems and violence, has an important governmental institutional presence. Although entities such as Acción Social and other centralized institutions have their regional headquarters in Apartadó, some of them have subsidiaries in Turbo and others simply make a presence with the programs that the Central Government has set up to pacify the region. Among these institutions is the ICBF, SENA, CAPITANÍA DE PUERTO, among others²²¹. You can see the presence of Port Captaincy in the Municipality of Turbo (See Photograph No. 5.61).



²²¹ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAUJO IBARRA & ASOCIADOS S.A. .Op. cit. p 504.

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Photograph No. 5.61 Harbor Authority of Turbo. Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015.

On the other hand, mention is made of the high presence of international bodies to verify respect for human rights and of international NGOs that work for the communities, some of which will be mentioned below.



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- ✓ Afro peace
- ✓ Families on their land (FOTL)
- ✓ Transitional Justice Committee of Antioquia – Departmental Plan of Action for the Prevention, Attention, Assistance and Comprehensive Reparation of the Victims of the Armed Conflict 2012-2015
- ✓ United States Agency for International Development (USAID)
- ✓ International Organization for Migration (OIM)
- ✓ Unit of Attention and Orientation to Displaced Population (UAO) municipality of Turbo
- ✓ Union of Agriculture Producers of Uraba for Colombia (UPRURAC)

Regarding the governmental entities that have to do with the management and control of the environmental issue, the main references are:

Ministry of Environmental and Sustainable Development: It's the institution in charge of directing environmental policies for the conservation and management of natural resources. Likewise, it regulates the actions in the field of territorial ordering and sustainable development, insofar as it is the entity in charge of issuing environmental licenses, imposing sanctions for violation of environmental regulations, and exercising functions of monitoring and control of them.

CORPOURABÁ: Their functions are those of "Executing the policies, plans and programs in environmental matters defined by Law", "Exercising the function of maximum environmental authority in the area of their jurisdiction" and "Exercising functions of global planning of the territory". The jurisdiction of the Corporation includes 19 municipalities of the department of Antioquia and an area of 1,906,485

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hectares²²². The offices corresponding to the study area are located in Apartadó (See Photograph No. 5.62).





Photograph No. 5.44 Office CORPOURABÁ.

Source : Self made by Aqua & Terra Consultores Asociados S.A.S, 2015

Municipal Personel: Their function is the promotion and defense of human rights and collective rights of communities and ensure the proper exercise of the responsibilities and functions of state entities. It acts as an entity of vigilance and control in this aspect and promotes citizen follow-up actions to implement policies and plans implemented from such entities. The Municipal Person of the Municipality of Turbo is Yuliana Cardales.

National Authority of Aquaculture and Fisheries (AUNAP): The entity responsible for executing the fisheries and aquaculture policy in the Colombian territory, with the purpose of research, ordering, administration, control and monitoring of fishery resources. The AUNAP Office is located in the Municipality of Turbo (See Photograph No. 5.63).

²²² <http://www.corpouraba.gov.co/>

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Photograph No. 5.63 Office of the AUNAP - Turbo Source: Prepared by Aqua & Terra Consultores Asociados S.A.S, 2015

- *Community organization and participation*

The Municipality of Turbo Antioquia, due to its large extension, registers the largest number of community organizations in the department of Antioquia. In total there are 195 active JACs. The entire Aburrá Valley has 177 active JACs. As a result, there is a very important social capital, which constitutes a real challenge to achieve social cohesion that generates development²²³.

Trade union organization: The union organization has had a strong presence in the municipality, finding more than 11 union organizations as in the subregion, gaining institutional and social spaces of decision and as a proactive organization. SINTRINAGRO is the organization with the greatest local empowerment, in the municipality it has 4,110 members, 35% of the total banana axis according to data from the National Trade Union School. In addition, according to the same source,

²²³ Development plan 2012 to 2015. Municipality of Turbo. Returning the way to progress. P.94

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approximately 50% of the votes of the current mayor corresponded to banana workers²²⁴. (See Photograph No. 5.64).





Photograph No. 5.64 Union Office in Nueva Colonia. Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

Banana Foundations: Each one of the banana marketers has set up a foundation in the region with the aim of making its social projection; Among them are: Fundabanadex, Fundaproban and Fundaunibán, the last one as the most recognized and the largest number of programs in the area²²⁵.

FUNDAUNIBÁN: The work of the foundation has never been limited by the violence experienced in the area, however the dynamics of the projects change at the most acute moments. The projection of the foundation has been structured around five areas:

²²⁴ Development plan 2012 to 2015. Municipality of Turbo. Returning the way to progress. P.94

²²⁵ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAÚJO IBARRA & ASOCIADOS S.A. .Op. cit. p 505.

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Educational: It develops through the Unibán Institute that provides the complete cycle of the Adult Center, where 280 primary school students, including banana workers and housewives, attend the basic primary level.

Community Development : The team of professionals from the social area works basically in the banana sector, with the objective of organizing the community so that they can elaborate and participate in the projects of interest for each settlement. Its special project is the "Training of Community Leaders in Citizen Participation Mechanisms". It has the co-financing of the European Union and has a year in execution of the two scheduled. Currently, it provides training to 70 leaders by municipality.

Promotion, selection and adjudication of housing: They have three new housing projects: the Campanos in Churidó, the Alborada in Apartadó and the Sol in Carepa. It has a revolving fund to finance the purchase and construction of housing or improvement and legalization of it; This program is exclusive for banana workers. Agreements are made with the Family Compensation Funds for the construction or improvement of housing with the subsidies that they give their affiliates and in addition to this, technical advisory services are sold to property owners under construction and expansion of the infrastructure.

Business Development: Two sectors are worked on: the micro-business and solidarity economy. In the first, there is a monthly forum for microentrepreneurs attended by 40 to 50 microentrepreneurs, managers and administrative staff of the farms. In the second sector, the regional recycling project is being carried out with 150 women head of family and there are four pre-cooperatives, one of them, Reciclatur, in Turbo. Currently it is co-financed by the Solidarity Network and CORPOURABÁ. For the second phase, the co-financing of the Inter-American Development Bank (IDB) is being processed to benefit 300-350 women. The foundation administers the workshops that former governor Álvaro Uribe Vélez mounted in three of the municipalities of the banana axis for this purpose (Apartadó, Carepa and Turbo).

Colombian Banana Association (AUGURA): This foundation has proposed to perform social work as "manager, coordinator, promoter of programs and / or

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projects that tend to improve the living conditions of the banana worker and his family, but not executor and directly responsible for solving the problems that in this matter they afflict the population directly related to the banana.

Thus, the inter-institutional work with the other economic and social agents, both state and private, who have their seat in Urabá, is broadened "(Report of activities of Augura, 1998).

The programs in execution are framed in health, education, housing, basic sanitation, culture, recreation and sports, infrastructure works, disaster prevention and attention and management with local administrations in Urabá.

In education they have managed and coordinated programs with educational entities such as the University of Antioquia - Faculties of Veterinary Medicine and Zootechnics and Social and Human Sciences. The SENA - SAC agreement, coordinated by Augura, aimed to raise the level of qualification and technological competence of producers in the agricultural sector.



Work has been done in training and in the Municipal Board of Education of the municipality of Apartadó, for the improvement of the quality of Education. In housing has been accompanying the old ICT, giving technical and legal advice to former debtors and accompanied in the study of new housing solutions for Urabá, among other activities of this order.

In basic sanitation, he has worked in prevention and promotion (cholera, food handling, education in basic sanitation, inspection and training and water culture). In infrastructure, it carried out repaving of roads and dredging of canals.

In culture, recreation and sport he held the first Banana Fair to integrate the community and create an atmosphere of peace and good image of the area.

There are other actions in the fields of trade union management at national, international and regional level, from the economic and social, among which are mentioned: a diagnosis of justice in Urabá and the creation of a legal library for the region as well than an effective radio system for the area. It is important to accompany and advise the municipalities in some specific projects and in some cases in the Municipal Planning Councils, when a call has been made²²⁶.

²²⁶ PUERTO BAHÍA COLOMBIA DE URABÁ S.A. and ARAUJO IBARRA & ASOCIADOS S.A. .Op. cit. p 506.

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Fishing Associations in the Municipality of Turbo: In response to the information reported by the National Aquaculture and Fisheries Authority (AUNAP), in the Gulf of Urabá, there are 28 fishing associations as shown in Table No. 5.55.



Table No. 5.56 Fishing and Aquaculture Associations of the Gulf of Urabá

Legal Representative	Association	Location	State	Phone
Mateo Mesa Ávila	Sea and River	Turbo (Punta Piedra)	Active	3104263855
Hernán José banda Castillo	Asualdi	Turbo (Puerto Boy)	Active	3117312080
Justa Flórez Plaza	APDUPB	Turbo (Puerto boy)	Active	3117543300
Gabriel Ramos Mercado	Corextur	Turbo (el tres)	Active	3206375737
Enafo González Sáenz	Apala	Turbo (Lomas Aisladas)	Active	3127704746
Deiver Manuel Álvarez López	Fishermans Association of the basin of the Rio León	Chigorodó (Barranquillita)	Active	3182698801
Pedro Heredia	Asopespiedra	Turbo (Punta Piedra)	Active	3113831656
Noel Narváez	Aspescar	Arboletes	Active	3124944132
Mirian Castro	Aspan	Necoclí	Active	3117239540
Rodolfo Mena	ASOPESNUR Fisherman Barrio Kennedy	Arboletes	Active	3128132306
Argemiro Gaviria	Apavecma	Claudia María	Active	3117343284
Manuel Francisco Díaz Zúñiga	Apeanco	Turbo (Nueva Colonia)	Active	3146877127
Darmiuro Panesso	Apesca	Puerto Cesar	Active	3128403998
Carlos Enrique Angulo	Asosapar	San Juan of Urabá (Damaquiel)	Active	8212352-3205675736
Adelaida Jaraba H.	Asaproso	Turbo (Piedricitas)	Active	3147530941
Gabriel Betancur	Asopesuno	Turbo (El Uno)	Active	3104928233
William Badillo	Asopacan	Acandí (casco urbano)	Inactive	3217155042
Guillermo Durango	Asopesca	Turbo (Coquitos)	Active	3127775001
Yaneth Monsalve	Asoprarcol	Mono Macho	Active	3168713440
Rafael Cuesta palacios	Unipez	Unguia (Marriaga)	Active	3113076227
Yevison Cuesta Chaverra	Asparboc	Turbo (El Roto)	Active	3206263611
Fernando Lobo Hernández	Asopegun	Necoclí (río Necoclí)	Active	3218228428
Justo Rafael Julio Vega	Asopesbricar	Puerto rey- Los Córdoba	Active	3113082193
Hernando Guerrero	Pescapur	Capurganá	Active	3127626857
Vicente Córdoba	Asopaleonci	Leoncito	Active	3137943361
Juan Manuel Rodríguez	A light of Hope	Calle larga	Active	3116364832
Viatnor Palacios Cuesta	Asopesca	Rio sucio	Active	
Placido Quejada Sandon	Aspischuc	Turbo	Active	3122764106

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015, With Information from AUNAP

5.3.7.5 Local organizations:

Township Nueva Colonia and Settlement El Canal:

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The Rural Government units located in Nueva Colonia, currently have a significant number of civic and community organizations involved in all kinds of processes: ecological, educational, productive, promotion of human rights, among others.



Some have greater recognition than others, given their ability to reach the real needs of the population, or in other cases, enable the processing of their requirements before instances that allow their resolution. Among the most recognized are:

- ✓ Community Mothers
- ✓ Sports Committees
- ✓ Community Action Boards (JAL)
- ✓ Association of parents
- ✓ Fishing Association
- ✓ Civic Brigades
- ✓ Groups from the third age
- ✓ Religious Groups
- ✓ Cultural Groups
- ✓ Institutional presence and community organization

The institutional presence, both public and private, added to the existence of community organizations of all kinds, although it evidences an intentionality of social management and participatory action by the government, does not in itself constitute an alternative for the exercise of citizenship, since that the levels of participation and appropriation of them by the members of the community are not especially significant.

It is estimated that less than 10% of the population has been part of some group or organizational process, and this low percentage groups aspects as diverse as participation in citizen training workshops, voluntary or sports or religious associations.

Although the majority of the community perceives that participation in general terms generates benefits for the community such as the possibility of having public or

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health services, access to housing improvement programs or even strengthening the processes of coexistence and negotiated solution of conflicts, the distrust of the population regarding any form of political participation is the predominant note. This situation is repeated both in the community, as a guild or political partisan, the latter being the worst concept has in the common population.²²⁷

This situation leads to a difficult dialogue between citizens and community organizations, with the State, and directly influences the possibility of building a city and citizenship; in the promotion of social inclusion initiatives; and in the dynamization of the exercise of the policy. In this sense, it is necessary to advance in the management of access routes to rights, and knowledge of the spaces and institutions responsible for their defense.



Regarding the issues that motivate the participation of the community, it is mainly referred to:

- ✓ Environmental protection
- ✓ Movements against violence
- ✓ Violation of human rights
- ✓ Against ethnic, gender and sexual discrimination
- ✓ Quality in the provision of public services and their rates
- ✓ Fight against political corruption
- ✓ Project Development
- ✓ Specific aspects of the Nueva Colonia township

Of the governmental and private organizations that are present in the municipality of Turbo, directly or indirectly, they carry out actions in the Nueva Colonia township; some with permanent work and others through specific interventions or economic support to local community processes.

In the first group, institutions such as: the Colombian Family Welfare Institute ICBF, the Government House in charge of Guillermo López (See Photograph No. 5.65). Within this set of public institutions, there are entities such as the National Police, with a police station in the Township (See Photograph No. 5.66); The Township

²²⁷ Official municipal website of Turbo 2011 [Online] <http://www.turbo-antioquia.gov.co/> [retrieved on August 15, 2015]

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Administrative Department of Health, makes presence with a public hospital in the township.



Photograph No. 5.65 Government House of Nueva Colonia Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015



Photograph No. 5.66 Sub Station of Police in Nueva Colonia Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

In addition, each neighborhood of the Nueva Colonia township has a Community Action Board, its legal representatives will be listed below (See Table No. 5.56)



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Table No. 5.57 Community Action Boards of Nueva Colonia

Community Action Board	Legal Representative
President J.A.C San Sebastián	Marcos González
President J.A.C caribbean 1	José Suarez
President J.A.C caribbean 2	Marticela Palacio
President J.A.C 29 of November	Hernán Sánchez
President J.A.C 24 of December	Sergio Narváez
President J.A.C The Tunnel	Alejandro Madrid
President J.A.C 19 of March	Julio Altamiranda
President J.A.C San Joaquín	Sebastián Rentería
President J.A.C Uniban	Benito Santana
President J.A.C Castle	Cornelio Córdoba Urrutia
President J.A.C sidewalk Puerto Boy	Sergio

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015



On the other hand, the presence of non-governmental organizations has represented an important support to the local processes, because if we take into account the situation of marginality in which the township is located and the insufficient action of the state in its resolution, the action of particular initiatives come to fill this gap in a meaningful way.

In this sense, these institutions have been working on specific themes for organizational strengthening, guarantee of human rights, visibility of local issues, environment, gender, ethnicity, health, technical training for production and entrepreneurship, mainly.



In the township the Board of PRODESARROLLO was formed, integrated with the representatives of the whole community and existing associations in Nueva Colonia. (See Table No. 5.57). This committee prepared the Zonal Township Plan and is currently in the process of socialization and dissemination.

Tabla No. 5.58 Organizaciones Comunitarias de Nueva Colonia.

Complete Name	ORGANIZATION / REPRESENTATIVE
Julio Altamiranda	Jac. B. 19 Of March
Luz Marina Acosta	Jac. B. 19 Of March
Hernando Guisao	Jac. B. 19 Of March
Luis Alberto Martínez H.	Jac. B. Caribbean No.1
Manuel Gutiérrez	Jac. B. Caribbean No.1
Rafael García	Jac. B. Caribbean No. 1
Libardo Guillén Orozco	Jac. B. Caribbean No.1

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Complete Name	ORGANIZATION / REPRESENTATIVE
Devercio Pineda	Jac. B. Caribbean No. 2
Luz Marina Hernández	Jac. B. Caribbean No.2
Javier Martínez	Jac. B. San Joaquin
Luis Alejandro Madrid	Jac. B. 29 Of November
José Antonio Moreno	Jac. B. 29 Of November
Luz Marina Valencia	Jac. B. Uniban
Arturo Morelo	Jac. B. San Sebastian
Alix Arroyo Conde	Jac. B. San Sebastian
Elías José Mestra	Jac. B. The Castle
Cornelio Córdoba Urrutia	Jac. B. The Castle
Edilberto Nava Romero	Jac. B. 24 December
Edilberto Mendoza	Jac. B. 24 December
Julio Cesar Bolaños G.	Jac. B. 24 December
Carlos Hernández	Jac. B. 24 December
Sergio Narváez Tapias	Jac. B. 24 December
Rodolfo Ríos	Jac. B. 24 December
Julia Lozano	Jac. B. 24 December
Alejandro Asprilla	Jac. B. San Jose /Las Flores
Víctor Manuel López	Jac. V. The Warriors
Wilfrido Blanco	Jac. V. Red Point
Enilsa Rosa Atencio	Jac. V. Red Point
Jaqueline Hernández	Jac. V. The Canal
Víctor Montalvo	Jac. V. The Teak
Leonel Valbera Anaya	Jac. V. Coquitos
Robinson Velásquez Mena	Goverment House
Elida Correa Borja	Deptal Constituent
Idelber Samboni Z.	Deptal Constituent
Lorena Londoño Pineda	Found
Alicia González Torres	Women Group – Muancol
Leida Pareja Mosquera	Women Group – Muancol
Edilma Ayala Durán	Women Group – Muancol

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Complete Name	ORGANIZATION / REPRESENTATIVE
Yoleima Luna Llorente	Community Mothers
Jaime Enrique Durango	Sports Committee Nva. Colony
Jhon Alexander Córdoba	Cultural Leader
Maximiliano Aluma	Inst. Educ. Nva Colony
Carlos Andrés Suarez	Student Representative
Edison Bravo Sánchez	Student Representative
Luis Eduardo Córdoba	Young boys Nva. Colony
Yaser Narváez Morelo	Young boys Nva. Colony
Eubadelina Chica	Asopadres Nva Colony
Carmen María Lozano	Foursquare Church
Fernando Benítez	Missionary Center Church
Darío Yepes Marín	E.A.T. We do Projects
Félix Paternina	Group Fish Farmers
Cristóbal Asprilla	Third Age
José Ortega	Sintrainagro
Pbro. Héctor Moya	Priest
Manuel Ignacio Moreno	Rector I. E. Nueva Colonia
Delsi Quejada	Jac. B. San José Las Flores
María Eugenia Ubaldo	Jac. B. Caribbean 1
Manuel Ruiz	Jac. B. 29 of November
Alberto Martínez	Jac. B. Caribbean 1
Yolanda Rúa	Syndicate/ Constituent Deptal
Prisciliano Maussa	Jac. B. 29 of November
Neyla Doria	Jac. B. Uniban
Wilson Díaz	Community Leader
Luis Alberto Wilches	Sports Leader
Remulo Cavadia	Sports Leader
Paula Andrea Flórez Ubaldo	Youth Leader
Said Hernández	Youth Leader
Arnold Julio	Youth Leader
Javier Córdoba	Youth Leader



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Complete Name	ORGANIZATION / REPRESENTATIVE
Libardo Mendoza	Jac. B. 29 Of November
Yuliet Salinas Doria	Youth Leader
Gustavo Eliecer Hoyos	Jac. V. The Canal
Tulio Sierra	Jac. B. 19 of March
Cecilia Durango	Jac. B. 29 of November
Luis Alberto Peña	National Police
Faustino Santos Rincon	National Police
Daniel Guerra	Sintrainagro
Adalgisa Martínez	Jac. B. 29 of November
Emiliano Martínez	Rector
Luz Miriam Martínez	Jac. B. 29 Of November
Enoris Ledesma	Jac. B. 19 Of March

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

Associations of fisherman identified

According to the list of active members of fishermen, in Nueva Colonia, there is only one formed association, called APEANCO (Association of Fishermen of Nueva Colonia), whose legal representative is Mr. Miguel Francisco Díaz Zúñiga, (See Photograph No. 5.67), who comments that there are approximately 32 fishermen in the association, but that approximately 80 people left the jetty in Nueva Colonia, of which more than half do not have a certificate certifying that they are in the craft trade.

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Photograph No. 5.67 Meeting with Legal Representative of Fishermen in Nueva Colonia Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015

In response to the information reported by the National Aquaculture and Fisheries Authority (AUNAP) (See Table No. 5.58), as noted in the Township de Nueva Colonia, artisanal fishermen are identified, who have as their embarkation and disembarkation Nueva Colonia . Many of them live in Nueva Colonia and the Canal, although the latter market their products in Nueva Colonia, but leave their fishing elements in the Canal near their place of residence.

Table No. 5.59 Fishing Database of Nueva Colonia.

Fishermans Name	Identificati on Card	Fishing Area	Arts and / or fishing methods	Association
Damaso Berrio Lemo	4810001	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Edinson Baron	71948663	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Beatriz Usuga Tiberquia	1045493125	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Víctor Sepúlveda Mercado	71242478	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Tomas Manyoma Longa	4857096	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Juan Porras Barragán	71948299	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO

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Fishermans Name	Identificati on Card	Fishing Area	Arts and / or fishing methods	Association
Inocencio Beitar Cuesta	8112487	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Abel Antonio Pedroza González	1040364720	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Mariela Machuca Mena	39410921	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Ariel Sánchez Machuca	1027959690	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Adalberto Sánchez Córdoba	71945961	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Samuel Antonio Martínez Conde	71938902	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
José Luis Romero González	8166043	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	APEANCO
Ancibar Chica Amaya	1040354009	Colonia, Coquitos , Calle Larga, Bocas Del León, Leoncito, Paila	Hand Line, Gillnets	NO
Elías Heredia Alvarez	18002477	Colonia, Coquitos, Hiervasal	Gill Net 3 1/2 Thread, Plastic	APEANCO
Francisco Vásquez Perea	71986322	Roto, Margarita, Pavas, Nueva Colonia	Gillnets	NO
Ruby Romero Cuadrado	39412154	Colonia, Roto, Bocs	Gillnets	NO

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015. With information from AUNAP- Consecutive database 2014 -2015

The main weakness of the organizations found in rural areas is their limited management capacity, not only of economic resources for their support, but also of political mobility within the local and township power bodies. In this sense, it is hoped that the local leadership will be better trained in order to strengthen their technical knowledge, capacity for dialogue, negotiated settlement of conflicts and promotion of human rights.

Likewise, it is urgent to empower communities to know the plans, programs and projects that influence their territories; this with the intention of benefiting from these in the best way, influencing their planning and being able to face the problems they generate.

In this sense it is striking that the Turbo Municipality Development Plan is scarcely known by some leaders and their communities, since it is configured as the

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navigation chart for state and private intervention in the sector, and therefore its appropriation and management is an unrestricted condition for community participation.

One of the most relevant findings is related to the low degree of participation of the community in the organizations and in the instances where decisions are made for the development of their territory.

Specific aspects of the El Canal settlement:

The only community-based organization is the Community Action Board with Legal Entitlement granted by Order No. 2043 of October 7, 2012, whose current composition can be evidenced in Table No. 5.59.

Table No. 5.60 Community Action Board El Canal.

Name and Surname	Cargo
Albeiro Miguel Sánchez Mejía	President
Lido Alberto López Contreras	Vice President
Libardo Torreglosa	Treasurer
Manuel Segundo Hernández	Secretary
Pedro Antonio Hernández Peinado	Prosecutor
Jorge Adalberto Sotelo	Conciliator
Cenaida del Carmen Montoya	Conciliator
Esteban Chica	Conciliator
Alberto Hoyos de la Cruz	Delegates to ASOCOMUNAL
Jorge Eliecer Córdoba	
Albeiro Miguel Sánchez Mejía	
Neyla Doria	

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015, with information provided by the President of the Community Action Board



The Community Action Board, of the El Canal settlement, has the following committees (See Table No. 5.60).

Table No. 5.61 El Canal Committees.

Committee	Name
Work Committee	Abel Camaño Tolera
Education Committee	Cristina Isabel Avilés
Health Committee	Carmen Cecilia Arteaga
Sports Committee	Luis Díaz García
Business Committee	Elbert González Fortiche

Source: Prepared by Aqua & Terra Consultores Asociados S.A.S 2015, with information from the Chairman of the Board

It is important to point out that at present, the Community Action Board, although its participation is in force, 3 of its representatives are not living in the settlement, in addition they do not usually meet and do not manage programs or projects. Although

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during the lifting of the information the president of the Board, was very proactive in the accompaniment of the activities.

It should be noted that there is no presence of other entities in the El Canal community.

5.3.8 Development trends.

The importance of Turbo and the sub region of Urabá lies in different factors: the fact that it is the only coastal region in the department makes it the exit from Antioquia to the sea.



The potentially strategic location of this region makes it privileged, since as it is exposed in the sub regional profile "Urabá Antioqueño: un mar de oportunidades y potencialidades [a sea of opportunities and potentialities]" (unpublished version), it crosses longitudinal and transversal axes that connect Colombia and Antioquia with the world, with great possibilities for integration, making it a great focus of opportunities and possibilities from an economic perspective. The aforementioned, added to the fact that this region is at the entrance of two oceans, makes it the best corner of America²²⁸.

From the Department of Antioquia is a very important vision for the development of the sub region, where projects and initiatives are identified that bet on improving, among other things, the physical infrastructure that is the basis of development. Thus, in the content of the current Development Plan of Antioquia 2012-2015 "Antioquia, the Most Educated", in line 6, (page 14) is the "Proyecto Integral Regional para el Desarrollo de Urabá. – Urabá: un mar de oportunidades" [Integral Regional Project for the Development of Urabá. - Urabá: a sea of opportunities]. This to take advantage of the geostrategic position in the Caribbean, the extension of the region and its multiple natural resources, in turn the possibility of generating maritime, port and logistics industry. Within this line is also component 6.3: "The sea as the axis of Economic Development and Competitiveness"²²⁹.

This section presents the probable development trends of the area of influence of the project, making an integral analysis of the socioeconomic reality of the area, resulting from the articulation of the most relevant aspects analyzed in the different components addressed in the social environment and the plans for development, territorial ordering and environmental management existing (in execution or projected) at the national, departmental and municipal levels.

²²⁸ MINISTRY OF LABOR, Op. cit. p 63

²²⁹ Ibid.

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The analysis mentioned above was carried out from the sub regional areas, emphasizing the analysis at the municipal level.

Regarding the above, the projects that can be executed from the Government of Antioquia stand out, due to the fact that the mayor's office of Turbo currently has important institutional weaknesses.

Currently the mayor of Turbo is under the charge of Mr. Rubén Darío Palacios, who took office as mayor in charge in January 2014 and will be in charge while resolving the future of the incumbent mayor William Ospina, who is currently under investigation by alleged links to *parapolitics*.

Although this situation generates problems when executing the municipal development plan 2012-2015, due to the progress made in the period, a large percentage of the budget has already been executed.

Municipal development plan 2012-2015



Among the programs and projects identified in the PDM that are linked to the land use plan and that are related to the integral development of the project in Puerto Antioquia, the following are found: (See Table No. 5.61).

According to this information reflected in the Development Plan of the municipality, it can be evidenced the projects that directly affect the object of the present study, such as: the improvement of the accessibility to the airport, wharves and places susceptible to development of port infrastructure in the municipality of Turbo and the design and construction of the regional road Tigre-Zungo- Nueva Colonia.

Table No. 5.62 Turbo 2000 POT Projects

Projects	Period
Completion of the Aqueduct and sewerage Master Plan for the municipal seat	Short
Design and construction of storm sewer	Medium
"Integral project of protection and conservation of the main ecological structure of the municipalities of the banana axis of Urabá"	Half
Management and incentives for the development of the industrial areas of the suburban corridors	Short
Design and construction of the Regional Road Tigre-Zungo-new Colonia-Turbo (section in the municipality of Turbo)	Half
Improvement of the accessibility to the Airport, Embarcaderos and places susceptible of development of port infrastructure in the municipality of Turbo.	Half
Constitution of the Municipal Fund for environmental protection with resources from the contributions of the zones for agricultural expansion of the Leon River	Short and Half

Source: Turbo Municipal Development Plan 2012-2015

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The Development Plan is articulated with the Territorial Planning Plan, to the extent that the POT Execution Program projects are included in the Development Plan that, according to the current administration, is in execution. (See Table No. 5.62)

Table No. 5.63 Development Plan of the Municipality of Turbo 2012-2015.

Strategic projects of the pot	Projects of the Municipal Development Plan	Responsible
Management and Incentives for the development of the Industrial Zone	Establishment of industries	Businessmen
Center for Science , Technology and Research to innovate	Participation in the management for the creation of a Science, Technology and Research Center	University, companies and State
Construction of a Tourist Dock in the Municipality of Turbo	Construction of a Tourist Dock	Secretary Agriculture and Medium
Construction of a pier in the La Playa neighborhood	Construction of the Bahía Colombia Pier	Secretary Agriculture and Environment
Construction of the Nautical and Fishing SENA	Construction of the Nautical and Fishing SENA	SENA Regional Antioquia
Master sewage plans	Execution of the first phase of the sewers of the townships of Rio Grande, Currulao, Nueva Colonia y El Tres.	Ministry of Public Projects

Source: Turbo Municipal Development Plan 2012-2015



Departmental Development Plan 2012-2015

From line 6 of the development plan of Antioquia, all these projects, if realized, would have an important relationship with the port, either directly in the case of the improvement of the regional and national road infrastructure or indirectly, by the influence that could have the projects mentioned in the improvement of the quality of life of the population.

Within the Departmental Development Plan, the "Integral regional project for the development of Urabá-Urabá a sea of opportunities " is contemplated in strategic line 6. (See Table No. 5.63).

Table No. 5.64 Project "Un mar de oportunidades" (A sea of opportunities)

Líne - Component - Program
Line 6. Comprehensive regional project for the development of Urabá – Urabá: a sea of opportunities
6.1 Institutionalization and Good Government to build trust
6.2 Social development for dignity and inclusion
6.3 The sea as the axis of economic development and competitiveness

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Líne - Component - Program
6.4 Sustainable territorial management and mechanisms for integration

Source: Departmental Development Plan 2012-2015

For the present program, the departmental government proposed the following budget items. (See Table No. 5.64).

Table No. 5.65 Budget Items

Lines (Amounts in millions of pesos)	2012	2013	2014	2015	Total Four Years	Participation
6. Integral Regional Project for the Development of Urabá	1.879	1.471	1.464	1.497	6.310	0,1%

Source: Departmental Development Plan 2012-2015

Some of the issues prioritized by the National Government and the Departmental for short-term execution are related to the following lines of work:

Urabá Connected. It includes large road projects such as the Transversal de las Américas, the road circuits that connect the different municipalities of the region with trunk roads, particularly the Transversal de las Américas and the Autopista para la Prosperidad.



The other important issue for Urabá is related to the University of Antioquia, headquarters of Turbo, for Marine Sciences that is already executed.

The construction of the university citadel in Apartadó is also under way; as well as the headquarters of Tulenapa, in Carepa.

The third priority issue has to do with Urabá Portuaria and Industrial. The first thing in this matter is that steps are being taken before the National Government, to seek that the banana port operation admits the arrival of non-banana ships and thus improve the competitiveness of the Antioquia and Colombian industry.

The proposal for a public-private partnership that will allow port and industrial development in the north of Urabá, near Necoclí, is also being consolidated.

In the north of Urabá, efforts are also being made to generate the exploitation of quality cocoa on a large scale, with the participation of the private sector. Also, in association with the Liquor Factory of Antioquia and the Ministry of Agriculture, the production of alcohols in that area is being promoted.

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The execution of the Atrato Gran Darién Plan Contract, in association with several dependencies of the governorate and with the National Government, in the areas of aqueduct and sewerage and basic sanitation; in municipalities of Córdoba, Chocó and those of Urabá.

Guidelines for the implementation of the Fisheries Management in the Gulf of Urabá.

The main objective of this program is to increase the productivity of the aquaculture and fisheries sector in the Department of Antioquia through the formulation of guidelines for the implementation of the fishing regulations in the Gulf of Urabá - Darién and the alternative use of by-products.

Strategic Plan of Antioquia PLANEA

Strategic Plan of Antioquia PLANEA, has identified the development of road, transport and telecommunications infrastructure as a strategic project that allows to overcome the isolation of production areas to urban consumption centers within the sub regions and the department with national markets and international.



To improve the infrastructure for the connectivity of Antioquia with the rest of the country and the world, the following programs are carried out:

Pathways to competitiveness in Antioquia

It includes the strategic road projects in the main road corridors of the national and departmental order, with significant improvements in their technical specifications, including, among others, improvements to double roads. It mainly affects the sub regions of the Aburrá Valley, Oriente, Occidente and Urabá.

This program considers road improvement or paving projects, basically related to the primary road network, which are being executed and other projects that have not yet been started. For the latter, management and support will be carried out, based on the prioritization of these and taking into account that the execution of some is medium and long term.

Projects for management and support in the Valle de Aburrá Road Corridor - Gulf of Urabá, the project includes the following works and stretches: Double Road Medellín - Santa Fé de Antioquia, Variant Santa Fé de Antioquia, Variant of Tonusco, Alternative Fuemia, Dabeiba Variant, Chever - Mutatá Variant, Chigorodó - Turbo Double Road, Apartadó, Chigorodó, Carepa, Currulao and Turbo Alternatives, Fernando Gómez Martínez Second Tunnel, Toyo Tunnel, Operation and Maintenance of the Medellín - Santa Fe de Antioquia Corridor -Turbo, Rehabilitation

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and Maintenance of the section Bolombolo - Santa Fé de Antioquia, Operation and Maintenance via Antigua Medellín - Río Aurrá, Access to Zungo Ports and Nueva Colonia. The total to Concession would be 497.7 km on roads.

Integrated Coastal Marine Management of the Gulf of Uraba

Due to the important industrial initiatives planned for the future, it is necessary to introduce in this planning and execution essential aspects of the environment and biodiversity through the concept of integrated management; Biomunicipalities proposes to introduce international experience and advice on this subject with the support of the Norwegian Institute of Aquatic Research - NIVA and cooperation with the Norwegian government through its NORAD finance institute.

To this end, an interdisciplinary and intersectoral group was consolidated, consisting of: Colombian Ocean Commission -CCO, Regional Development Agency of Antioquia -ADRA, Regional Autonomous Corporation of Urabá -CORPOURABA, OCEANICOS Research Group of the National University, Coastal Marine Research Group GISMAC of the University of Antioquia, Association of Banana Growers of Colombia -AUGURA, Génesis and Engineering SA, Community Council of Black Communities and some municipal governments of the region.



In addition, the Corporation focuses on establishing a database and updated, complete and reliable information about the Gulf of Urabá-Darién, accessible by all involved. Unfortunately, at the moment the process is suspended while the relevant authorities update the positive image of Colombia before the Ministry of Foreign Affairs of Norway²³⁰.

Regarding private projects or promoted by NGOs, the Implementation Plan of the Marine Fauna Recovery Center of the Gulf of Urabá of the Biomunicipalities Environmental Corporation²³¹ was found, which aims to build a Center for the Conservation of Marine Life for the Urabá Gulf. -Darien, to integrate the region around the processes of recovery, rehabilitation and sustainable management of marine species. Implementing from it, management plans, management and productivity that rescue and highlight the coastal marine potential and that offer a solid base for the Integrated and Sustainable development of the region.

Regional Environmental Management Plan 2012-2024 of CORPOURABÁ

²³⁰ <http://biomunicipios.org>

²³¹ ENVIRONMENTAL CORPORATION BIOMUNICIPIOS. Implementation plan for the Marine Fauna Recovery Center of the Gulf of Urabá [online]. Available at <<http://www.biomunicipios.org/43485/43527.html>> [retrieved on May 17, 2011].

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Regional Environmental Management Plan (REMP), is an instrument of long-term strategic planning for the area of jurisdiction of the Corporation for the Sustainable Development of Urabá-CORPOURABÁ, which will allow to guide environmental management in the period 2012 - 2024 and respond to environmental challenges, priorities and issues, defining prioritized high-impact programmatic issues, input for the formulation or adjustments of government policies, plans and programs and environmental determinant par excellence, for the local and regional planning processes present and futures.

The REMP has been formulated in accordance with the guidelines established by the Ministry of the Environment and Sustainable Development, framed in Law 99 of 1993, decrees 1768 and 1865 of 1994, 1200 of 2004 and in resolutions 0643 of 2004 and 0964 of 2007, It also responds to the global objectives in terms of environmental sustainability, to the challenges that the country and the region have in the medium and long term and to the agreement with community, public and private social actors, with a view to improving living conditions and of the environment in the jurisdiction.

5.3.9 Information on the population to be resettled

For the project Construction and Operation of a Multipurpose Port Terminal in Bahía Colombia de Urabá will not require the execution of a resettlement program, because currently the population that is settled in the Canal settlement, it is part of the program of relocation of housing in the Canal community executed by the FUNDAUNIBAN Foundation.

The project includes the improvement of the quality of life of 35 families and is carried out thanks to the cooperation of the Winter Wave Adaptation Fund.

Due to the execution of this project by the entity in reference, the environmental management sheet MS-3 Resettlement Program of the affected population contemplated in the environmental license granted through Resolution 0032 of January 25, 2012 is deleted.