

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES



**CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA  
TO THE ECONOMY OF ITS COUNTRIES 2010-2014**

**Karen Clavijo Sandoval**

**Lorena Mazo Osorno**

**Federico Osorio Duque**

Institución Universitaria Esumer  
Facultad de Estudios Internacionales  
Medellín - Colombia  
2016 - 1



CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

**CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF  
BUENAVENTURA TO THE ECONOMY OF ITS COUNTRIES 2010-2014**

**Karen Clavijo Sandoval**

**Lorena Mazo Osorno**

**Federico Osorio Duque**

Research paper presented to obtain the title of:  
**International negotiator**

Director (a):

Juan Camilo Mesa Bedoya

Doctorando en Relaciones Internacionales

Investigation line:

International Trade



### **Acknowledgements**

Our gratitude is for all the people that with their help have contributed in the making of the present work, specially to our adviser, professor Juan Camilo Mesa Bedoya, for his guidance, the follow up and continuous supervision of the same.

Special recognition and gratitude to our investigation team that contributed to achieve the objectives proposed at the beginning of the creation of this final project for graduation.

We also want to thank the understanding, patience and encouragement by our family and friends.

To all of them, thank you very much.

### **Abstract**

The logistics platform are a mixture of technology, infrastructure and provide specialized human capital and not specialized, and the processes structure; with these elements a perfect movement and handling of goods and services into international markets is achieved.

This investigation is a comparative analysis between Panama's Colón port and Colombia's Buenaventura port in order to identify the contribution to every country's economic growth. The information involves the logistics situation in terms of sizes, storage capacity, social and taxation factors and their participation in a global scale.

It's important to take into account that the Colon port has a virtuous cycle that encourages its economic growth and the Buenaventura port it is located in a lagging zone which doesn't have the same logistic strength.

**Keywords:** Port, Colón, Buenaventura, comparative, economy.

## Content

List of tables

List of graphics

List of abbreviations

Introduction.....	1
1. Project's formulation.....	2
1.1. Backgrounds.....	2
1.1.1. State of the art.....	7
1.2. Approach to the problem.....	8
1.3. Justification.....	11
1.3.1. Theoretical justification.....	12
1.3.2. Social justification.....	12
1.4. Objectives.....	13
1.4.1. General objectives.....	13
1.4.2. Specific objectives.....	13

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

1.5. Methodological framework.....	13
1.5.1. Method.....	13
1.5.2. Methodology.....	14
1.6. Impact.....	15
2. Project execution.....	16
3. Findings.....	42
4. Conclusions and recommendations.....	45
4.1. Conclusions.....	45
4.2. Recommendations.....	47
References.....	50



## List of tables

Page

**Table 1:** Number of transits by the Panama Canal..... 21

**Table 2:** Main ports in the handling of containers..... 36

## List of graphics

**Graphic 1:** Unemployment in Panama 2006 - 2013.....20

**Graphic 1:** Participation in GDP.....24

**Graphic 1:** Economic growth of transportation, storage and communications...  
25

**Graphic 1:** Movement of TEUs per year..... 29

**Graphic 2:** Exported products year 2013..... 30

**Graphic 3:** Exported products year 2014.....31

**Graphic 2:** Producing sectors in Buenaventura 2010..... 34

**Graphic 4:** Movement of containers in Caribbean and Latin American  
countries.....37

## List of symbols and abbreviations

### **List of symbols**

T: Ton.

TEUs: Twenty- foot equivalent unit. Unit of measure in maritime transportation in containers.

Usd: American dollar.

### **List of abbreviations**

SPRBUN: Sociedad portuaria regional de Buenaventura.

TEU: Twenty- foot equivalent unit. A container's cargo capacity

UNCTAD: United Nations conference on trading and development

CFZ: Colon free zone

CEPAL: Comisión Económica para América Latina y el Caribe

DANE: Departamento Administrativo Nacional de Estadística

ANIF: Asociación Nacional de Instituciones Financieras

GDP: Gross domestic product

## **Introduction**

The following investigation refers to the topic of economic comparison between the port of Buenaventura and Panamanian port Colon, where the reaching, infrastructure and contribution that both ports make to their respective countries can be identified.

The main characteristic of these two ports is the high capacity of income and outcome of merchandise; their infrastructure has allowed this recognition at national and international level. However throughout this investigation, diverse issues can be identified. These issues are reflected by variables such as unemployment, the little state investment and the lack of training for the port's workers.

The comparative investigation regarding the economic aspect of Buenaventura and Colon ports, is made because of the interest for knowing the contribution both ports generate to the economy of their respective countries. Focusing on the inquiry from the professional and academic interest is done with the goal of identify each of the aspects; both the negatives and the positives.

## **1. Project's formulation**

### **1.1 Background**

Referenced below, are found studies regarding the ports of Buenaventura (Colombia) and Colon (Panama). In first place will be introduced the ones related to the first port mentioned.

Carlos Humberto Ortiz and José Ignacio Uribe in the year of 2006 developed the paper "Hacia un modelo de desarrollo incluyente para el Valle del Cauca" in which they identified the factors involved in the decreasing economic competitiveness of Colombia and specially the one from Valle del Cauca. This way is found that not every part of the population enjoys economical benefits and in order to change this and make a more competitive place in the economical field out of Valle del Cauca, in necessary to develop industrialization works that involve both human capital and infrastructure, the same as state's participation (Ortiz & Uribe, 2007).

Nayibe Jiménez Pérez and Wilson Delgado Moreno in the year of 2008 published the paper "La política de privatización del sector portuario y su impacto en la organización del trabajo en el puerto de Buenaventura", in this the conditions for the privatization and modernization of the port sector were developed, besides the model of management, which was based in the reduction of costs and the creation of jobs in Buenaventura's port. With the port's

privatization, a decrease of the unemployment, poverty, marginality and violence indices could be achieved (Jiménez Pérez & Delgado Moreno, 2008).

In the investigation “Los puertos públicos colombianos ante los retos del TLC” made by José Barbero in the year of 2006, was proposed that the logistic costs implied in Colombia’s shipping routes are elevated because of the distances of the production and consume centers, the same distances that are smaller for competitors like Panama, Ecuador and Peru, giving them an advantage in their productive chain. The port of Buenaventura is little efficient in front of the the competitors, that’s the reason why is necessary to make adjustments in the level of service, to expand the accesses to the port, including land crossings and to mitigate the zone’s social problems (Barbero, Mundial, & Roda, 2006).

In the analysis “Buenaventura: Una Ciudad-Puerto, Globalizante, Diversa y Multicultural”, done by Félix Suarez Reyes in 2010, is explained that Buenaventura must be planned as a XXI century city, turning it into the economic, social and cultural capital of the Pacific. With this, urbanistic, social, technological and educative benefits would be obtained, and it would allow the exploitation and preservation of the zone’s natural resources (Félix Suárez Reyes, 2010).

Alonso Valencia Llano in the year of 2014 worked in the investigation “Los orígenes coloniales del puerto de Buenaventura”, in which the port’s history was studied, showing that it was initially used as a fluvial port and as a maritime port afterwards. That transformation had social and economic implications that once

exceeded, made of Buenaventura's port the only port of the Colombian Pacific (Valencia Llano, 2014).

Jorge Cavallazzi Vargas carried out the study on the current situation of ports in Colombia inside their Latin American and global context through his paper named "evaluación de la infraestructura logística en puertos colombianos para la importación de materia prima", in order to get to know the installed capacity, the main types of cargo and their fees. Given the importance of investment as a source for the development of new projects, the interest was deepened in both private and state's projects. With the previous information, the analysis of Colombian ports capacity was done, and the necessity to make investments that allow the expansion of the capacity of logistic centers in Colombia was confirmed, that in order to maintain its strategic position as an actor in global trading (Cavallazzi Vargas, 2010).

Maybe Caballero Gamez, examined Colombia's port conditions and analyzed the world's main ports as a point of comparison in order to suggest possible solutions on the most critic areas and the ones more prone to be improved in Colombian ports. At the same time, studied how can Colombia's free trade agreements benefit and affect its main ports in order to know in depth each one of the benefits and disadvantages that logistic infrastructure has, specially in Colombia's port situation (Caballero, 2013).

Related next are the investigations found regarding the port of Panama. In 2014, Pedro Heilbron developed the paper “Logística, El poder del canal” in which the impacts that the expansion of the canal will have are assessed. The expansion of the port will change mainly the aspect of the country, modifying aspects of maritime transportation; this will be achieved taking advantage of the country’s ports system that is Latin America’s most modern. On the other hand, is intended to offer services to ships of higher capacity (4.600 TEUs) and to finalize the construction of Panama- Colon highway, that way reaching the expansion of port services (Heilbron, 2011).

Professor Fernando Carreira Pitti in the year of 2012, developed the analysis “La ampliación del canal de panamá y sus efectos en América Latina” that had as a main objective to examine the effects, both positive and negative, that the expansion of the canal has, bearing in mind the consequences to the country’s other ports and at the same time for Colombian ports and neighbouring countries. Besides, in this investigation, was clearly established the investment and quantity that the expansion of the canal creates, where the main components for the implementation of these strategies by Panama were analyzed too (Carreira, 2012).

Pablo Antonio Worrell Jordan in the year of 2010, studied and developed the investigation “Las medidas en frontera de la propiedad intelectual en la zona libre de colon” in which the study problem consisted in the existence of a duality of

functions between Panama's customs authority and Colon free zone intellectual property directorate, about who must apply the procedures to enforce the measures in Colon free zone intellectual property border. Besides, the economic boom given over the last years in Panama, the creation of industrial and production zones, the reversion of areas contiguous to the canal, as well as the diverse modifications done to customs and economic laws give as a result that the volume of merchandise increases, both in imports and in goods in transit. This last topic turns as a result the increase of forgery felonies, where Panama's custom authority channels all its efforts to counter those irregularities (Worrell, 2010).

The U.S. agency for international development, USAID, made the investigation "el diagnóstico del municipio de Colon" in the year of 2010, and it had as main objective to inquire about the behavior of Colon's region, as one of the most important of Panama. At the same time, it was clearly studied the unemployment percentage that the region has, and it was possible to know how known and important could the port be in Latin America, besides the infrastructure the region counts with (USAID, 2010).

Panama's foreign trade vice minister, Pacheco Tejeira, designed and developed the analysis of how can a "global logistic platform" be build, and there is clear the number of collaborators this port currently has.

Since the port has three docks with a capacity to move annually 2 million of TEU's, from the port's privatization process, different companies like Hutchinson



Port Holdings, MIT, Colon Container Terminal and Singaporpe's port authority have invested more than 2 billion dollars on new infrastructure and improvements. Likewise, it's studied the main products used and handled in this port (Tejeira, 2010).

### **1.1.1 State of the art**

Mentioned next are the studies that connect Panama's port with the port of Buenaventura.

Jan Hoffman in the year of 2000 developed the article "El potencial de puertos pivotes en la costa del Pacifico Sudamericano" in this paper it's mentioned that the countries located in Pacific's south American coast could be used as hub ports because there is possible to concentrate all the cargo coming from the same country and neighbouring ones, by land or sea. Thanks to this, public investment programs for port infrastructure and terrestrial transportation were carried out, this had a direct influence over the privatization of the port. Buenaventura, thanks to its geographical location represents an expectative for maritime transportation coming from the European market, becoming one of the strongest port's of the Pacific. On the other hand, the Panama canal is the main one, because it counts with a high quantity of inner connections and high maritime traffic of ships coming from other parts of the world (Hoffmann, 2000).

Juan José Bernal in the year of 2015 developed the grade work “Análisis comparativo del puerto de Barranquilla, Buenaventura en relación con los puertos de Chile y Colón en Panamá” This paper makes reference to the access problems that the port of Buenaventura has in the different ways of transportation like maritime and terrestrial but, at the same time, the increase in merchandise volumes worked for that port and the problem this causes regarding storage logistics, not being able to count spaces more suited for the cargo and because the proximity with the community forbids an expansion in a bigger proportion. On the other hand the variables that affect the port regarding agility in its operations are analyzed, as are the required documentation, infrastructure, delays in processes that slow down the operations of entry and exit of merchandise, alluding to the interconnections that Colon Port offers counting with the railway, the free zone and infrastructure that allows a better competitiveness for this port (Bernal, Mena, & Villalba, 2015).

### **1.1 Approach to the problem**

It's desired to make the comparison between the main Colombian port, located in Buenaventura, and the port of Colon, in Panama canal. In this sense, it's necessary to identify the flow of each one of the ports, the level of exportations that goes through them, the type of merchandise that's frequent and the growing they had. It's also expected to understand the reason because the port of Colon

has become one of the most important ports in Latin America and the port of Buenaventura, despite being one of the most used ports in Colombia, keeps lagging regarding imports and exports.

It's important to highlight that the port of Buenaventura counts with severe infrastructure standards mostly due to the country's inner conflict and property expropriation, situations that have created both social and economical instability. Nevertheless it's mandatory to mention that Buenaventura's the main and most important port in Colombia, since geographically speaking it's the best located. In addition counts with better income and outcome of merchandise indices compared to other Colombian ports like Barranquilla, Cartagena and Santa Marta, but at the same time its transit and loading times are slow.

The port of Buenaventura counts with a high storage capacity and can admit ships form any kind, which is a very eye- catching variable for buyers and sellers, however the costs of the services take the clients to analyze their economic capacity. At the same time, delays in the merchandise transit and loading times are owed to the port currently not having any high-tech machinery, the personnel in charge of logistic procedures it's not qualified. All that takes to a decrease in service quality, and to a drop in economical incomes and merchandise mobility. As for the high costs in storage, it's caused by diverse variables like volatility of peso against dollar and the high costs generated in inspections by regulator entities.

## CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE ECONOMY OF THEIR RESPECTIVE COUNTRIES

On the other hand, the port of Colon in Panama canal counts with a solid infrastructure since it's one of the most important ports at a global level. It's a high merchandise flow port. A key point is that this port counts with a highly trained personnel, differentiator variable compared to the port of Buenaventura, but their services count with high remunerations, affecting social and economical variables.

Is of high importance to keep in mind that the port of Colon has great capacity to receive any kind of ship but works as a transit port, where merchandise storage is rare and it's not the port's main objective. In this one, the operations are done through outsourcing, because given the high flows of movement, they must count with support from other companies to accomplish each one of the objectives, both from entrepreneurs and from the port's responsibility. Counting with high capacity infrastructure, technological machinery and trained personnel, port's services have elevated costs, cause this variables are of high importance to the country, the users and the state. However, it is important to highlight that this takes the client to think clearly if it's the best choice for merchandise transit.

Though both ports have similarities and differences, the main interest of this paper is to know the contributions that each one make -despite having conditions on their daily logistic activity- to the economy of their respective countries, bearing in mind that both are the most important ports from Colombia and Panama.

## **1.2 Justification**

### **Theoretical justification**

The finality of this investigation is the comparison between the port of Buenaventura and the port of Colon, to establish and develop strategies used by the governments of each country, to determine the reason why those two are currently considered the most competitive and eye-catching ports in the world.

This comparison between the two ports is done with the purpose of identifying the existent differences between them and that way get to develop convenient strategies to improve their operation and competitiveness.

### **Social justification**

To analyze how the strategies utilized by the port of Buenaventura and the port of Colon contribute to the development of the community, such as job creation, the care of the environment and the economical grow of the city, country and region, bearing in mind the social and political problems at a global level.

Is important to highlight that it's desired to propose and manage different tactics to the ones currently found as for social development that help to strengthen the analyzed ports.

## **Personal justification**

The development of this paper seeks to increase the knowledge acquired during throughout the career studies, applying them into the learning in the investigation both for personal growth as for work and formative related too, taking the maximum advantage of the collected information to put it into practice in the work field on a daily basis.

## **1.2 Objectives**

### **1.2.1 *General objective***

To analyze the contribution of the port of Colon (Panama) and the port of Buenaventura (Colombia) to the economy of their respective countries during the 2010-2014 period.

### ***Specific objectives***

- Identify the contribution of the port of Colon to the Panamanian economy in the 2010-2014 period.
- Identify the contribution of the port of Buenaventura to Colombian economy in the 2010-2014 period.
- To contrast the economic contribution that both ports made to the economy of their respective countries.

## **1.1 Methodological framework**

### **1.1.1 Method**

For the present investigation, the exploratory and descriptive method is employed, since a particular to general reasoning is done, taking the contributions that Colon and Buenaventura ports make to then obtain conclusions about the impacts on their respective economies.

The exploratory method is used when little information is available or when data about the study subject is unknown, that way helping to better define the questions of the investigation, while the descriptive method has as its finality to make a diagnosis of the topic that's being treated through the interpretation and the analysis of texts and theories.

### **1.1.2 Methodology**

*Secondary information gathering:*

This paper is proposed as a documentary analysis to compare the repercussions that the port of Colon and the port of Buenaventura have in the economy of their respective regions. Information will be collected both online and from books, and additionally an investigation in academic theses, informs and historic contents will be done, in order to bring enough data to respond to the focus of the study.

*Primary information gathering:*

Since no concrete field work is available, the main source will be the collecting of information from studies and recent statistics from government authorities of each country, also different graphics, lists and tables will be taken into consideration to help interpret the data quantitatively and qualitatively to accomplish a correct interpretation of the contributions that both ports make to their markets.

## **1.1 Reachings**

**1.1** The delimitation of this investigation begins with the execution of an analysis about the contributions of the port of Colon in Panama and the port of Buenaventura in Colombia to the economy of their respective countries. Such study shall be between the years 2010 and 2014, situating indicators that allow the interpretation of the information from one year to another.

A comparison between the two ports will be conducted considering their logistic infrastructure and the merchandise flow, the same as the importance they have for the competitiveness of the markets at a global level, taking the most relevant impacts for the growth of their economies.



This investigation was carried out during approximately five (5) months in which was tried to identify the contributions that each logistic center does to the economy of its nation.

## **2. Project execution**

Starting from the understanding of maritime ports, it can be understood that they're transport hubs that represent logistic patrimonies and that are strategically located to foment international goods exchange. This way they're conceived as an specific space, allowing connectivity between earth and sea. Obviously, between one and other are held certain operational zones that help to an efficient management (Trade & Logistics Innovation Center, 2011).

Not all maritime ports count with the same capacities of infrastructure, technology or human potential. That creates differences as for storage capacity, freights competitiveness (costs and guarantees) and journey times, stability and flexibility of movable materials. That's the reason some ports reach a more sustainable growth in time, promoted by different factors (Cousteau, Jack, 2013).

Next, the effects on Panamanian and Colombian economies will be analyzed, in relation to their main ports.

## **2.1 The port of Colon and Panamanian economy**

The port sector has become one of the most influential ones for Panama's growth, that way being one of the links in the international logistic sector.

The history of the port of Colon begins in the year of 1994, when Evergreen group decided to bet on a modern logistic sector and proposed a viable and strategic project to Panama's government; where in the year of 1997 Colon container terminal S.A. initiates its operations, offering to international trading a new platform for cargo distribution. This project was executed in three (3) phases that seek the expansion through the construction of docks that can store a bigger area of containers and merchandise (Colon Container Terminal , 2009).

In the internship inform about Colon free zone, entitled "Zona Libre de Colon, Referente Comercial de América" (2014), the authors mention that ever since the construction of the port of Colon began, this terminal has become a fundamental place for the transshipment of incoming and outgoing cargo from Colon free zone. This zone counts with a high number of maritime access routes, that grants it a great privilege for international commerce and just as the Panama canal, they're platforms that impulse the increasing and sustained development of the country's economy, facilitating and ensuring foreign trade transactions with the rest of the world; additionally, they have a logistic disposition that ensures their operations and generates an image of trust and security to attract foreign

investors, providing them tax and customs benefits, that are represented in better costs (Mercado, Quintero & Quintero, 2014).

To count with this privilege, having an economy open to foreign trade, allows Panama to strengthen different sectors that are based on foreign investment. That's the case of the financial system, assets and service trading, transportation and storage, technology and communications, manufacturing industry and public services; a phenomenon that's promoted by the incentives policy and special economical zones (Proinvex Panamá, 2015).

Ever since the concessions for private investments began to be granted, the economic activity of the port of Colon has had a sustainable increase in the mobilization of annual TEUs<sup>1</sup>, a 21% average, where the private investments have made the port global sized one, boosting Panama's logistic sector, having the canal as main base, where there's a complete transportation logistic and their connections such as their highways, rail, airports and capacity to take care of ships of any size (Rodríguez, 2011).

Another growth source that it's had is based on Colon free zone that it's the world's second in area and that has taken big companies from all the world to install there, making this port a point of distribution for Latin America. This installation is interpreted as the investment that private companies make in this country, that's explained by the World Bank when it says that Panama keeps its

---

<sup>1</sup> Twenty- foot equivalent unit. An unit of measure for cargo capacity in ships.

## CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE ECONOMY OF THEIR RESPECTIVE COUNTRIES

spot as leader in internal economical growth where the FDI (foreign direct investment) grew a 26% during the first semester of 2014 in comparison to the same period of the year 2013, that results in investors´ trust and the good performance Panamanian economy has (Secretaria de Asuntos Económicos y Competitividad, 2014)

The contribution that the port of Colon generates to Panamanian economy it´s based on maintaining what´s been accomplished until now: becoming a big logistics center. Their free zones attract foreign investment and high consume levels to the country, but what´s most emphasized is the jobs it creates. That´s evinced by the unemployment indices presented by the Investment programming director, Norman Luis Arauz (2014), in his inform about the breach of infrastructure in Latin America, Panama´s case “La Brecha de infraestructura en Latinoamérica y el Caribe Caso de Panamá”.

**Graphic 1: Unemployment in Panama 2006-2013**



Source: Contraloría general de la nación and ILO

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

From graphic number 1 can be interpreted that unemployment in Panama is decreasing presenting “full employment” levels, taking into consideration the period covered for this investigation where in the year of 2010 an unemployment level of 6,5% can be observed but for the following years a decrease is produced presenting levels inferiors to 4,6%. All that can be associated with the

Free zones offer advantages to the ones desiring to establish there, like tax benefits. With 0% taxes, 0% billing tax, 0% in tariffs and fees, the benefit of finding everything in the same spot, agility for shipments, accessibility with the account for places like Asia, Africa, Europe and Australia (Zonalibreinfo, n.d.).

The government during the 2010-2014 period, explains that CFZ has a favorable impact in job creation, providing 30.000 direct employs and more than 60.000 indirectly, helping to improve the quality of life of the residents: free zone that’s also linked with the increase in imports and exports, the participation in the GDP in national economy and a boost to construction activities with the finality of expand the physical capacity for the development of logistical operations (Colon Free Zone, 2010).

For 2014, the Panama canal registered a total of 13, 482 transits of ships of deep and low commercial draughts that transported 225 millions of large load and generated a total income in tolls that reached USD 1,910.3 millions (Logistics Innovation & Research Center, 2012).

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE ECONOMY OF THEIR RESPECTIVE COUNTRIES

**Table 1: number of transits through the Panama canal**

Año fiscal	Número de tránsitos	Peajes	Toneladas largas de carga
2014	13,482	1,910,256,973	224,884,091
2013	13,660	1,849,679,052	209,884,569
2012	14,544	1,852,409,775	218,054,902
2011	14,684	1,730,052,192	222,357,111
2010	14,230	1,481,962,773	204,854,465

**Source: Logistics Innovation & Research Center, 2012**

For 2012 the canal obtained a 24% increase in the number of TEU's handled, where the 69.0% of this amount was transshipped and a 10.3% stayed in CFZ.

In the year of 2013 the number of transshipped TEU's increased to 71%, while in 2014 had the amount of TEU's increased in an 18.8% where the 64.2% of the merchandise was transshipped (Logistics Innovation & Research Center, 2012).

The transshipment centre of the Americas, the port of Colon, has implemented a quality policy that's reflected in the increase of its operations, as detailed by Logistics Innovation & Research Center; policy that acts towards responding the demand from clients and capitalists that execute their transactions through Colon Container Terminal, the ones who promote a first class service of transport of international cargo, basing on customer satisfaction, continuous

improvements, secure operations, productivity optimization, technological training promotion, minimizing risks of cargo damage the same as times between processes and work accidents. With this quality policy the port of Colon reaches a high competitiveness level with the other terminals in charge of maritime transportation that also count with ideal standards to give response to the necessities of capitalists (Colon Container Terminal, 2009).

Added to their quality strategy, the students (Calle, Castañeda & Galvis, 2015) in their paper about the state of logistic infrastructure of the port of Buenaventura in relation with the port port of Colon “Estado de la infraestructura logística del Puerto de Buenaventura en relación al puerto de Colón”, explain that the port of Colon integrates a systematic security system that allows to control its own security infrastructure, with the most capable personnel to perform these functions and that keep this terminal apart from illegal activities; a CCTV that gives continuous monitoring to the port zone, complemented with a bicycle circuit and a patrol boat that protect the surroundings.

In Panama, one of the activities with the biggest participation in GDP is transport and communications. For 2013, the participation of each sector was represented as follows:

**Graphic 2: GDP participation to 2013**



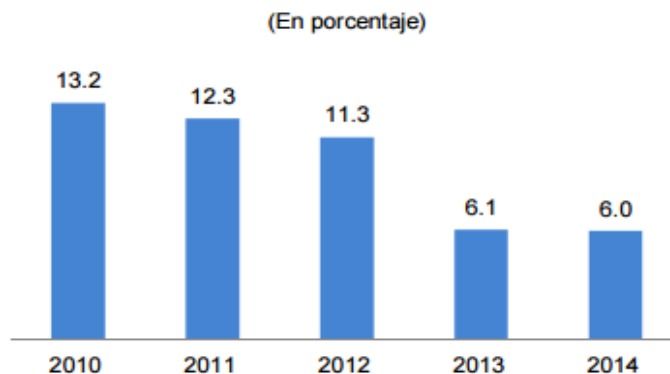
**Source: Instituto Nacional de Estadística y Censo de Panamá**

In relation to this economical information, the Ministry of economy and finances, in their Economical and social inform (2014), indicates that Panama's economical growth for the year of 2014 was of a 6.2% and the activities that experienced a bigger growth were fishing (19.6%), construction (14.9%), mining and quarrying (12.5%), real state, renting and entrepreneurial activities (9,7%) and transportation, storage and communications (6,0%) where the canal, air traffic and maritime ports are included (MEF, 2014, p.24).

Next, the evolution in the transportation matter is shown, where the maritime ports are included:



**Graphic 3: Transportation, storage and communications economical growth**



Fuente: Instituto Nacional de Estadística y Censo.

A decreasing can be observed over the last years. That obeys to the interruption of service in the Asia- U. S. east coast route. However, the port, on the last analyzed period, moved 82.5 millions of tons, increasing bulk cargo in a 10,6% and containerized cargo in a 2,6%.

**2.2 The port of Buenaventura and Colombian economy**

At the present time, maritime transportation in Colombia is integrated by three types of logistic platforms: private docks that perform foreign trading activities; the specialized ones, that take care of the exportation of goods such as oil, coal and bananas; and regional port societies that move goods in and out of the country. The ports of Buenaventura and Barranquilla are included in this last category. These two count with multipurpose terminals and Cartagena with the transport of containers (Pérez, 2007, p.15).

Buenaventura's regional port society is considered as the most important terminal of Colombia's Pacific that connects the north-east part of the bay with the canal of Panama. Port activity of this platform was constituted by the end of 1993 as a mixed capital enterprise, where the biggest part belongs to private capital; the 83% belongs to private entrepreneurs, 15% is controlled by the public sector represented by Buenaventura's office of the mayor and the remaining 2% is in the hand of the Ministry of transport. Given its dimensions of infrastructure is the port with the biggest participation in foreign trading of Colombia and represents 50% of the cargo of national territory (SIC, 2014, p.29).

But despite the port of Buenaventura being one of the country's more significant maritime platforms, it has certain disadvantages in front of the ports of the Pacific, presenting deficiencies on the internal movement of goods, not counting with the proper capacity to respond to the demand of their clients because of problems such as not having enough depth for the entry of high volume ships, and its mobilization and storage capacity (Calle, Castañeda & Galvis, 2015).

Taking into account that the terminal of Buenaventura has serious problems in the region, investment of private and public resources have accomplished that the cargo traffic doubles, that way starting to contribute to the country in the tax matter, adding the competitiveness and the attraction that this port generates in the Pacific coast. This is clearly explained by the administrators

from Universidad del Rosario on their paper about the situation of the port of Buenaventura to perform Asian- Pacific commerce entitled “Diagnóstico de la situación Portuaria de Buenaventura para realizar Comercio Asia Pacifico”: Currently, the port moves forty (40) containers per hour, which means that a develop on infrastructure and technology has been made in order to improve efficiency in each one of the logistical processes that are executed inside the facilities of the zone; this complemented with the 52% costs reduction that has presented on their fees, transmits an environment of improvement of productivity and competitiveness (Escobar, Suarique & Sotelo , 2012, p.108)

In order to strengthen the economical growth in the region, the port of Buenaventura faces significant changes with the free trade agreements, which is the case of the agreement with the United States, where the port society is forced to implement strategies focused on the enhancement of the competitiveness at a regional level, since this convention causes an increase on the imports and exports and in the current capacity for the transit of merchandise. Hence, they should include projects that contain the following tactics: “A growth in the port traffic of containerized cargo and big solids; competitiveness in imports from the United States; an increase in exports of Colombian handcrafted products to the United States”. Such strategies must be organized by two key points for the development of the port: “Capacity and efficiency” (Escobar, Suarique & Sotelo , 2012, p.108).

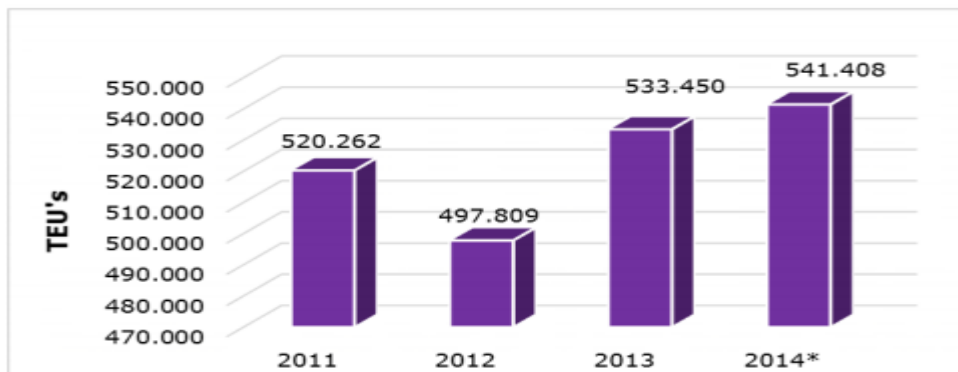
By linking with the aspects of globalization and international relations, Colombia experiences a competitiveness that has been complex to Buenaventura since the free trade agreements are a 30% exports and 70% imports, but if there were no such agreements, there wouldn't be enough dynamism available to have a progress in the region and to reach the same capacity levels as other nation's ports. (García, 2013).

According to the Central Bank, the activities that move the economy in the city of Buenaventura are agriculture, services, commerce, industry, tourism and the activity of the port, being this the one that produces the most resources to the region (Pérez, 2007, p.23). In attention to the expressed by Perez, validates thanks to the activity of the port, this has produced great attraction on the community, disposing of their workforce in order to sustain this FTZ, becoming since the 20th century the biggest employer in the city (Fedesarrollo-Cerac, 2013, p.72).

Sadly enough, the privatization of enterprises is one of the measures that allow a certain region to strengthen their economy, and as a consequence of the privatization of the port a provision of cranes and equipment for its modernization has been obtained, contributing with a value of 4,2 billions to the nation during the year of 2012, product of the traffic and mobilization of merchandise by maritime mediums, a significant contribution compared with the one made by other ports in the country (Collazos & Borrero, 2006).

Next, the growth of the movement of cargo capacity is evidenced.

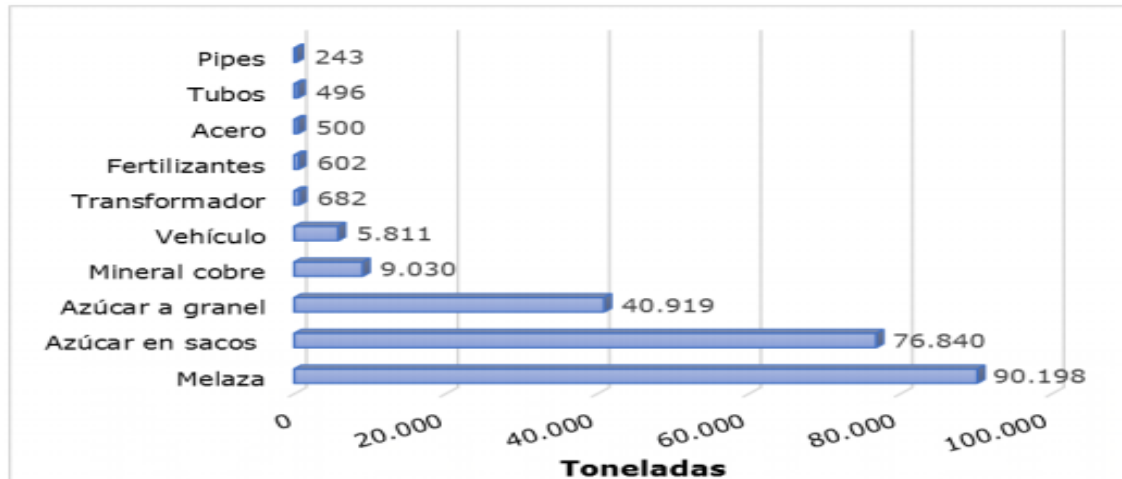
**Graphic 4: Movement of TEUs per year**



In the graph above can be observed the growth it's had since 2011 in the movement of TEUs where in the same year had an initial annual increase of the 1,4%, according to the 2012-2013 period had an increase of 7,2%, so much so that the investment and development that the port has been sustaining in relation with the increase on the movement, which in turn generates a great economical benefit for the region.

Likewise, the variation in the exported products for the periods in which it had an increased movement gives a boost to the economy of the region and of the country, that way promoting the inclusion of new products as can be observed next:

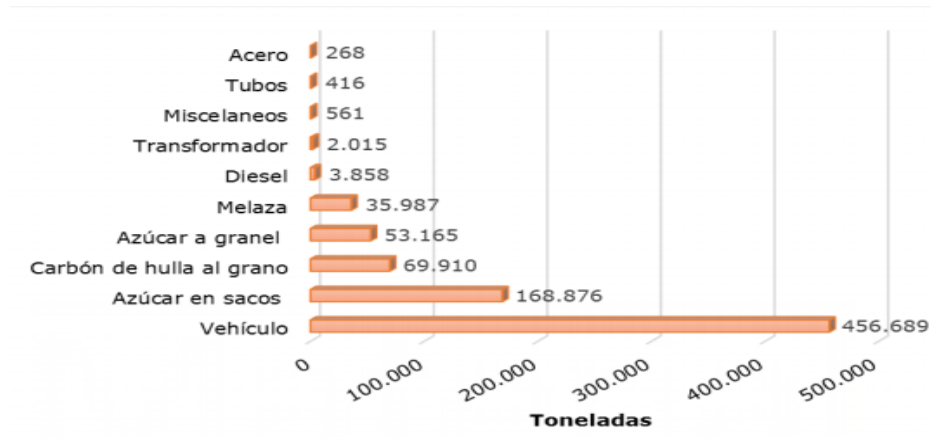
**Graphic 5: exported products year 2013**



**Source:(LEGISCOMEX.COM, 2014)**

For 2014, the product with the biggest exportation rate was treacle, this way concentrating the 40% of the market that correspond o 90.189 Tons, followed by sugar sacs with 34% of the market, then is the sugar in bulk with an 18,1% participation in the market, we also find copper with the 4% and lastly we find vehicles with a 2,6% being these the most significant products, similarly we can observe the variation for the previous year.

**Graphic 6: Exported products year 2014**



**Source:(LEGISCOMEX.COM, 2014)**

It can be seen that for 2013, existed a variation in the exported products starting with vehicles, that represented the 57,7% of share in the market, equivalent to 456.689 tons, then we find sugar sacs with 168.876 tons, followed by coal with soft coal in bulk with 69.910 tons having a 21,3% share in the market, then it's the sugar in bulk with 53.165 tons with a share of the 8,8% and lastly, treacle with 35.987 tons, what meant an 6,7% share. (LEGISCOMEX.COM, 2014).

We can observe that for 2014 existed a variation in the exported products with a rise in the less exported products, another ones that keep stable and another products that enter to the exports chain, that way becoming a more dynamic economy and with new challenges for the region in growth matter,

generating more attraction to inner and foreign investment on infrastructure and technology.

Relating the economy of Buenaventura, in the inform designed by the Pacific's pipeline in 2014, mentions the port and commerce as ones of the economic components of the zone where the different "productive" "macro-projects" "capacity building" activities are located, where opportunities to perform activities that revolve around the port are found, thanks to the associated services. But as for the education and public services levels the region has big issues, with high illiteracy rates; a 9% in the urban area and a 20% in the rural area. Regarding public services, there's no sewage or aqueduct system that works constantly and without interruptions (Oleoducto del Pacifico, 2014).

In the 2015 study by ICESI university "Buenaventura como puerto", they cite numbers taken from DANE, where the current reality for some sectors is reflected. The hometown of the port of Buenaventura presents health and education issues, the illiteracy rates reach the 62%, while in health coverage they reach 38%. They also explain that during 2014 the population increase was of a 5% compared to 2013 that only counted with 384.402 habitants. Having an 80% of the population in poverty conditions.

Resuming history, in the inform "Perfil Productivo Municipio de Buenaventura" from 2010, they make reference to the sectors that create an increase in productivity and employment. The transport of cargo through port and

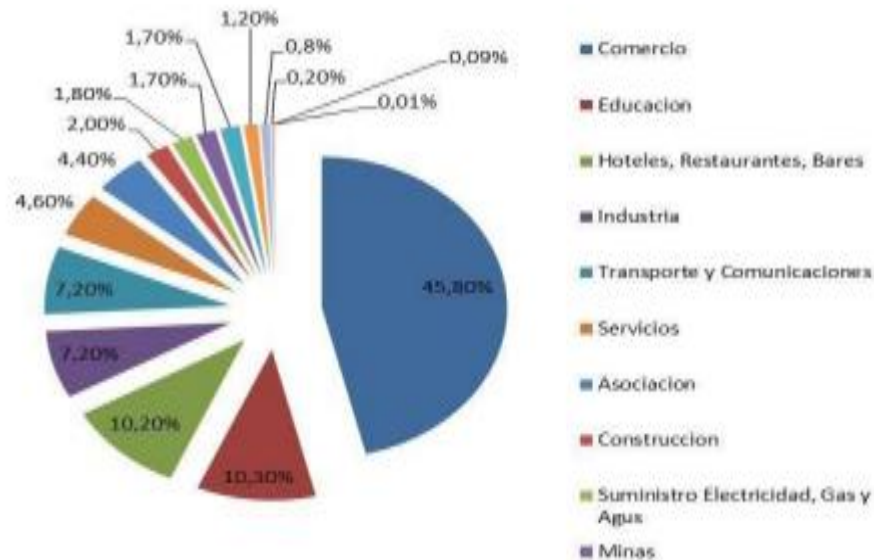


CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

logistic societies generate 4.080 jobs, from which 1.080 are direct and 3.000 indirect, while shipping agents generate a 300 jobs that are considered direct.

Even though this numbers are from some years ago, in relation with the education levels it could be considered that there aren't enough opportunities for the community. In the graphic number seven (7) the different sectors that create jobs are detailed.

**Gráfica 7: Sectors that created jobs in Buenaventura- 2010**



**Source: Cámara de comercio – Registro Mercantil**

In numbers by sectors becomes evident that the commerce has the biggest activity in the port, propelled to a large extent by the port's operations, but the high level of direct or indirect employment that the zone creates cannot be taken aside. A 73% of jobs that at the same time activates the economy of other regions (MinTrabajo, 2013).

Currently, and even though no concrete or official data of unemployed population is available, the Chamber of Commerce of Buenaventura estimates that these unemployment levels reached a 62% for 2014. On the other hand, the

National Association of Financial Institutions indicated that unemployment in the port reaches the 40% (El Pais, 2015).

During the year of 2014, Colombia's economy in general grew in a 4,6% in which the department of Valle del Cauca had a share in GDP of a 9.3%, which indicates that the participation in this zone of the Pacific is happening thanks to the regions of Valle del Cauca (DANE, 2015).

### **2.3 Contrast of the economical contributions of the ports to their economies**

Clearly, the commercial activity of both analyzed ports revolves around the circulation of TEU's and not only in these Latin American ports. According to information by the UNCTAD more of the 80% of foreign trade of merchandise is done by sea (UNCTAD, 2015). Such circulation focuses in the capacity that each free zone has to mobilize and storage in optimum conditions the merchandise; in other words, it becomes an competitiveness and capacity of infrastructure topic.

In view of the above, it becomes necessary to perform an analysis comparing productivity, earnings and benefits that such ports (Colon- Panama and Buenaventura- Colombia) report to the economy of their respective countries.

In the next graphic is shown how the productive relation between Colon and Buenaventura is hard to compare due to their particular conditions. The

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

operations of port of Colon outrun in an evident way the operation of the Colombian port, which translates in the first port having better commercial, technical and operational conditions that add up to the problems that the port from Valle faces such as public order, state's abandonment and the lack of conditions.

**Table 2. Main ports in the handling of containers**

Ranking	Puerto	País	Volumen (TEUs)	
			2009	2010
1	Colón (MIT, Evergreen, Panamá Port)	Panamá	2.210.720	2.810.657
2	Balboa	Panamá	2.011.778	2.758.506 *
3	Santos	Brasil	2.255.862	2.715.568
4	Kingston	Jamaica	1.728.042	1.891.770
5	Buenos Aires (incluye Exolgan)	Argentina	1.412.462	1.730.831
6	Cartagena (inc. S.P.R, El Bosque, Contecar,ZP)	Colombia	1.237.873	1.581.401
7	Manzanillo	México	1.110.356	1.509.378
8	Callao	Perú	1.089.838	1.346.186
9	Freeport	Bahamas	1.297.000	1.125.000
10	Guayaquil	Ecuador	884.100	1.093.349
11	Caucedo	Rep.Dominicana	906.279	1.004.901
12	Itajai (inc.Navegantes)	Brasil	593.359	957.130
13	Valparaíso	Chile	677.432	878.787
14	San Antonio	Chile	729.033	870.719
15	Limón - Moin	Costa Rica	748.029	858.176
16	Lázaro Cárdenas	México	591.467	796.011
17	Puerto Cabello	Venezuela	790.000	...
18	Veracruz	México	564.315	677.596
19	Montevideo	Uruguay	588.410	671.952
20	Buenaventura (inc. SPR y ZP)	Colombia	647.323	662.821
21	Rio Grande	Brasil	629.586	647.188
22	Paranaguá	Brasil	630.597	546.564
23	Puerto Cortes	Honduras	484.148	538.853

**Source: (LEGISCOMEX.COM, 2012)**

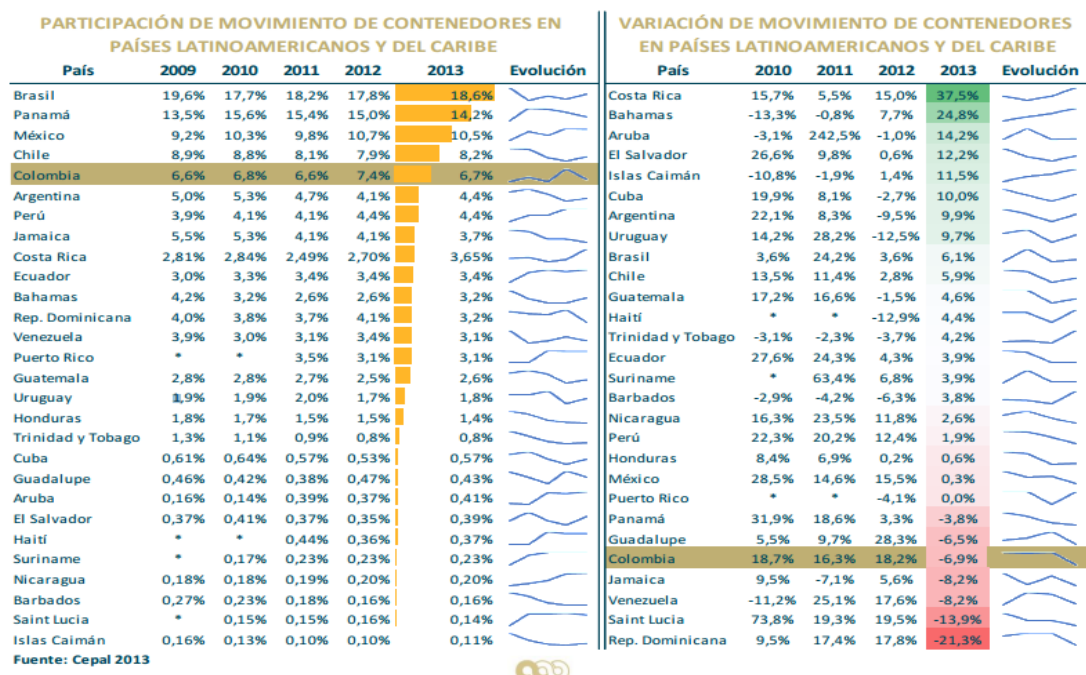
The position of the Colombian port in 2009 and 2010 and not only the place it held but also its load and unload capacity, show a clear disadvantage in front of the port of the comparison and a lot of other ports of the region.

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

For the following years, the outlook didn't offer many advances, not only in Colombia but in the region itself, where some kind of decrease in the port capacity of all Latin America is observed. In fact, the inform by CEPAL for 2014 explains that this tendency is mainly determined by 5 countries located in the Caribbean basin, where on one hand Colombia and Jamaica registered an annual fall of -6,9% and -8,2% respectively and on the other, Venezuela (-8,2%), Panama (-4,3%) and Dominican Republic (-21,7%) also had negative results causing stagnation in the region's growth. However, despite not having obtained the best results in regional results, some other countries managed to rebound in the traffic of containers, where Costa Rica ranks in the first place with a growth of the 37,5%, followed by Bahamas (24,8%) and Aruba (14,2%).

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE ECONOMY OF THEIR RESPECTIVE COUNTRIES

**Graphic 8. Movement of containers in Latin American and Caribbean countries**



Source: (ANDI, 2014)

This situation can be explained from different optics and should be looked at closely, since the contexts, environments and histories of the countries compared are completely different and have gone through economical, political, administrative and time- dependent processes that at the end of the day have vastly modified their essence.

The port of Buenaventura (that in this comparison results in complete disadvantage) possess certain characteristics and has certain deficiencies that put it in an inferior place in front of the bigger ports of the region, but such

problems aren't just a matter of the port of Buenaventura. Many other national ports appear not to have the ideal conditions for their labor.

Large ships demand depths, in their access canals, of more than 60 ft. of depth. Buenaventura, to set an example, only offers 30 ft. and with recent dredgings it has come to 45 ft. but this has been very transitory since the port's entry bay is very vulnerable in this sense given the sedimentation phenomenon originated because of the Anchicaya, Dagua and Calima rivers. Resuming some numbers, it is observed that Buenaventura moved from 32 ft. to 41, Cartagena moved from having 37 ft. to having 47, Barranquilla had 24 ft. now has 40 and Tumaco had 14 ft. and now it has 24 ft. We're still very far from required international standards. But despite the efforts we're unable for the arrival of a modern mega- ship since these demand at least 57 ft. of minimum depths (Caballero, 2013).

One of the reasons to be considered as obsolete is that it only counts with 17 hectares, in which it has no possibility of expanding according to the growth of the operations and neither it counts with a logistical platform for the port's extra activities that helps to decongest the port itself.

### **Illustration 1. Port of Buenaventura**



**Source: (Caballero, 2013)**

These fore mentioned characteristics, added to the high prices of the tariffs in Colombia and the load and unload taxes causes the lack of a wide commercial activity for the port of Buenaventura that allows it to contribute in an active manner to the country's economy.

On the contrary, the port of Colon, counts with an extensive maritime logistic regarding TEU's commerce, where in addition, new interventions and projects of expansion have been approved in order to expand the capacity for receiving international cargo for the benefit of the country.

Despite this contrast, it's possible to identify points of positive impacts for their regions. Like the employment topic, this port zones improve the economy of



the people in monetary terms since they proportion a series of occupations, counting with qualified and non qualified workforce. This causes the quality of life to improve and finally the region's quality of life too. This cannot be accomplished by other sectors like agriculture, commerce, mining, the tourism in the case of Colombia or manufacturing, construction, tourism and financial services relating to Panama.

Additionally, it must be taken into consideration the amount of technology that's managed to be transferred through the free trade agreements and the foreign investment that contributes with modernization and high quality standards to these ports and the city.

To the fore mentioned ads that despite both ports possess a favorable geographical location, the port of Colon has connectivity with CFZ, where there's access to a vast amount of commercial areas that increase the dynamism of the markets and at the same time the tourism. For its part, the port of Buenaventura, only focuses in the transit of goods and doesn't find a complement with other activities. It's necessary to mention that the port of Colon has a wider infrastructure than Buenaventura, with better logistical capacities and absorption of foreign investment that provides it technology and knowledge

An evident contrast between the port of Colon and the port of Buenaventura is found in the employment matter. It was analyzed that for Panama the unemployment rates are decreasing, which means that not only the

port of Colon offers full employment to the country, but other port zones like the canal do as well. While for the port of Buenaventura a clear consensus on the unemployed population is not available, the regional authorities estimate that it has reached a 62% during the last period of this investigation.

The growth of GDP of both regions obviously doesn't possess the same participation, given that Panama is a zone that in large part impulses the economy thanks to the transportation and communications activities where maritime services are found and Buenaventura is moved by commerce. Therefore the contribution that the maritime zone does to Colombia is not as significant as the ones from other regions, even region located in the Pacific itself.

### **3. Findings**

The effects that the port of Colon has in Panamanian economy are evidenced in the annual increases that are identified in the historical indicators, where the navigation volumes from and to the different foreign markets are shown. Los efectos que tiene el puerto de Colon en la economía Panameña se evidencian en los aumentos anuales que se identifican en los indicadores históricos, donde se muestran los volúmenes de navegación desde y hacia los diferentes comercios internacionales.

Thanks to the attractive characteristics the port of Colon possess, like geographical location, the handling of a dollarized currency, the legal and tax

## CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE ECONOMY OF THEIR RESPECTIVE COUNTRIES

benefits that are seen represented in lower costs for the clients allows the absorption of foreign investors covering different markets, this contributes to the country with a significant economical growth propelled by the transport and communications sector with a share of the 19% in comparison with all the other activities.

Panama is still a leader in economical growth, achieving for 2014 a 6,2% promoted by the construction sector with a contribution of a 15,5%, the transport and communications sector with a 7,7% and commerce with a share of a 3,3%.

Panama, because of its national and political strategies, manages to compete at international level with other port zones similar to the port of Colon, which contributes to the economy of its city with access to employment, where in the last years a decrease in this rate is evidenced, locating below the 4,6%. This comes along with qualified workforce, an improvement in the life quality of the community, high tech operations and to have big infrastructure available to respond to the demand from their clients.

Since the port of Buenaventura is a 30% exports and a 70% imports, it hasn't achieved the enough economical growth. Adding up the social issues of the region, the limitation to the access of big cargo ships and little government presence, the development of the port zone is put on deadlock and leaves it without any competitive chance to cope with the commerce and the demand from clients. However, with the signing of the free trade agreements a door has opened

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

in order to obtain a dynamism in operations with foreign markets, reflecting in the increase of the goods flow transits.

Buenaventura doesn't count with exact numbers that allow to identify exactly what is its contribution to Colombian economy, being a region that's lagging behind and where its economical indicators are not measured with clarity by the authorities, like the case un unemployment which is estimated in a 62%; besides this, it must be taken into consideration that the activity with a bigger share in this region is commerce and not port activity. Consequently, it's found that the regions that strengthen the economy from the Pacific are Valle and Cauca with a share of a 4,2%.

It's clear that exist differences between the port of Colon and the port of Buenaventura. The first is considered to be the most important logistical centre of Latin America with high operational levels, technological infrastructure that optimizes transactions and that's located in a country that promotes foreign investment, phenomenon that facilitates the access to international markets; while in the port of Buenaventura despite the work that has been done in order to strengthen its infrastructure and logistical services, doesn't match the port of Colon in the volume of cargo that's that are done by sea due to factors such as public disorder, the lack of state's support and social issues.

## **4. Conclusions and recomendations**

### **4.1. Conclusions**

From the contrast proposed for this investigation paper can be deducted that in the competitiveness matter the port of Colon is more competent, counting with factors such as foreign investment, state's intervention and its infrastructure, the basis to the strengthening of their transit operations; while the port of Buenaventura despite having a high percentage of private capital, doesn't reach the competitiveness level of Panama, presenting deficiencies in its infrastructure for the entry and exit of merchandise, its storage capacity and the little participation and investment from the state.

On the other hand, Colombia is a country that has deficiencies in logistical and capacity related aspects, since it doesn't count with an infrastructure that manages to incisively impact the economy of the country, needing other instruments to promote it, like the case of the free trade agreements that implant a grade of efficiency and competitiveness in the processes to respond to the demands of international markets.

Regarding the economical matter, Buenaventura keeps having problems related to education, public services and health, from which can be deducted that the port, despite activating the commerce, doesn't have a representative impact

on the issues of the city or in the quality of live of the community since the insufficiencies have maintained there for years.

In relation to the port of Colon can be concluded that thanks to their port platform, not only from this particular terminal but from other FTZ, a high grade of development in Panamanian economy is reached, articulating aspects of infrastructure and technology, capacity to mobilize merchandise, logistic in processes, tax benefits, a foment in commerce and foreign investments, that way benefiting the population and the region.

One of the elements where the port of Colon makes an impact is the access to full employment, where a decrease in the unemployed population is presented. What can be concluded is that the operations generated by this terminals allow to employ more habitants and offer them levels of education because of the transference of knowledge that manages to happen through these canals.

In a country with suitable national and territorial schemes, with favorable strategies not only for clients but for the population, a bigger economical growth is achieved. For its part, Buenaventura doesn't experience a high evolution despite having the potential to do so because they only seek to be at the same level in maritime platforms to be able to compete with the other zones that connect with the Pacific. The development must cover all territorial aspects to strengthen the

sectors that contribute to the city that way having a dynamic participation in the economy, like Panama does with its ports.

#### **4.2. Recomendations**

From the perspective of economical growth for each country, in the case of Colombia could be contemplated more intervention from the state, with strategic plans of government that can be executed and that give a boost to the maritime transportation of merchandise and to foreign investment, in order to achieve favorable conditions for the people, the companies and the foreign commerce, and that contains proposals that mitigate all of the social issues.

For those countries that reach positive development levels like Panama, keep doing what they do correctly with the purpose of keeping their growth levels and evince an utilization of their territorial advantages. The same as keep encouraging capitalists to have a bigger participation of their investments in the different sectors that activate this economy.

In the educational level, a new field work must be performed in order to allow the complementation of this investigation, where strategic information can be extracted for the analysis of the different factors that manage to cause a positive or negative impact in the regions where the different ports analyzed in this paper are located.

### **Bibliographic references**

ANDI. (21 de Junio de 2014). *Ranking Movimiento de Contenedores CEPAL.*

Retrieved from [http://www.andi.com.co/glti/BOLETINES2014/Bolet%C3%ADn\\_06-174.\\_Se\\_desacelera\\_tr%C3%A1fico\\_de\\_contenedores\\_en\\_Am%C3%A9rica\\_Latina\\_y\\_el\\_Caribe.pdf](http://www.andi.com.co/glti/BOLETINES2014/Bolet%C3%ADn_06-174._Se_desacelera_tr%C3%A1fico_de_contenedores_en_Am%C3%A9rica_Latina_y_el_Caribe.pdf)

Arauz, N. (2014). *La brecha de infraestructura en Latinoamérica y el Caribe Caso de Panamá.* Retrieved from

[http://www.cepal.org/ilpes/noticias/paginas/9/53319/16\\_4to\\_Panel\\_Norman\\_Arauz\\_Panama.pdf](http://www.cepal.org/ilpes/noticias/paginas/9/53319/16_4to_Panel_Norman_Arauz_Panama.pdf)

Barbero, E. S. de T. del, Mundial, B., & Roda, P. (2006). Los puertos públicos colombianos ante los retos del TLC. *Revista de Ingeniería*, (24), 101–103.

Retrieved from <http://www.scielo.org.co/pdf/ring/n24/n24a15.pdf>

Bernal, J. J., Mena, S., & Villalba, M. C. (2015). *Análisis Comparativo del Puerto de Barranquilla y el Puerto de Buenaventura en Relación con Los Puertos de Chile y Panamá.* Universidad Pontificia Bolivariana, Medellín.

Caballero, M. (2013). *Una infraestructura portuaria eficiente y competitiva en Colombia. Diagnóstico y perspectivas.* Universidad militar nueva granada.



Calle, K., Castañeda, S. & Galvis, J. (2015). *Trabajo de investigación Estado de la Infraestructura logística del Puerto de Buenaventura en relación con el Puerto de Colón* (Panamá). Institución Universitaria Esumer, Medellín.

Carreira, F. (2012). *La ampliación del canal de Panamá y sus efectos comerciales*. Retrieved from [http://www.fitac.net/documents/Docspag/4\\_LAAMPLIACIONDELCANALDEPANAMAYSUSEFECTOSENAMERICALATINA\\_Dr.FernandoCarrei.pdf](http://www.fitac.net/documents/Docspag/4_LAAMPLIACIONDELCANALDEPANAMAYSUSEFECTOSENAMERICALATINA_Dr.FernandoCarrei.pdf)

Colon Free Zone. (2014). *Plan de acción Zona libre de Colón*. Retrieved from [http://www.zolicol.gob.pa/imagenes/pdf/plan\\_de\\_acciOn\\_zona\\_libre\\_de\\_olOn.pdf](http://www.zolicol.gob.pa/imagenes/pdf/plan_de_acciOn_zona_libre_de_olOn.pdf)

Cousteau, J. (2013). *Ventajas y desventajas del transporte marítimo*. Retrieved from <http://www.seguridadnautica.es/ventajas-y-desventajas-del-transporte-maritimo>

El País. (2015). *¿Cuántos desempleados hay en Buenaventura?*. *El País*. Retrieved from <http://www.elpais.com.co/elpais/valle/noticias/cuantos-desocupados-hay-buenaventura>

Escobar, Suarique & Sotelo, (2012). *Diagnóstico de la situación Portuaria de Buenaventura para realizar Comercio Asia Pacifico* (traducido). Universidad del Rosario, Bogotá. Retrieved from

<http://repository.urosario.edu.co/bitstream/handle/10336/3726/1020736014-2012.pdf?sequence=1>

Félix Suárez Reyes. (2010). Buenaventura: Una Ciudad Puerto, Globalizante, Diversa Y Multicultural. *XIV Encuentro de Latinoamericanistas Españoles*.

García, A. (2013). *Buenaventura aporta \$4,2 billones y solo recibe el 3%: gerente de Sociedad Portuaria. El País. Retrieved from*  
<http://www.elpais.com.co/elpais/valle/noticias/buenaventura-aporta-42-billones-y-solo-recibe-3-gerente-sociedad-portuaria>

Heilbron, P. (2011). *Logística: el poder del canal. Latin Trade*.

Hoffmann, J. (2000). *El potencial de puertos pivotes en la costa del Pacífico sudamericano. Retrieved from*  
<http://archivo.cepal.org/pdfs/revistaCepal/Sp/071121143.pdf>

Jiménez P. N. & Delgado M. W. (2008). *La política pública de privatización del sector portuario y su impacto en la organización del trabajo en el puerto de Buenaventura. Pensamiento y Gestión. (25), p.178–213. Retrieved from*  
<http://rcientificas.uninorte.edu.co/index.php/pensamiento/article/view/3462>

LEGISCOMEX.COM. (2012). *Estos son los principales puertos en el manejo de contenedores. Retrieved from*  
<http://www.legiscomex.com/BancoConocimiento/P/Principales-puertos->

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

[manejo-contenedores/Principales-puertos-manejo-contenedores.asp?SigaPaisExterno=Corporativo](#)

LEGISCOMEX.COM. (2014). *Estadísticas del Puerto de Buenaventura*. Retrieved from <http://www.legiscomex.com/BancoMedios/Documentos/PDF/estadisticas-puerto-buenaventura-rci292.pdf>

Logistics Innovation & Research Center. (2012). *Canal de Panamá*. Retrieved from <http://logistics.gatech.pa/es/assets/panama-canal/statistics>

Logistics Innovation & Research Center. (2012b). *Colon Container Terminal*. Retrieved from <http://logistics.gatech.pa/es/assets/seaports/colon-container-terminal>

Mercado, K., Quintero, D. & Quintero, D., (2014). *Pasantía Panamá Zona Libre de Colón, referente Comercial de América*. Institución Universitaria Esumer, Medellín.

Ministerio de Trabajo. (2013). *Perfil Productivo Municipio de Buenaventura*. Retrieved from [www.mintrabajo.gov.co/.../1600-perfilproductivobuenaventura.html](http://www.mintrabajo.gov.co/.../1600-perfilproductivobuenaventura.html)

Oleoducto del Pacifico. (2014). *Hacia un desarrollo integral de la ciudad de Buenaventura y su área de influencia*. Retrieved from <http://intergremialbuenaventura.org/phocadownloadpap/2014/edicion%204.pdf>

Ortiz, C. H., & Uribe, J. I. (2007). Hacia un modelo de desarrollo incluyente para el valle del cauca. *Estudios Gerenciales*, 23 (102), 13–62. Retrieved from [http://www.icesi.edu.co/revistas/index.php/estudios\\_gerenciales/article/view/214/212](http://www.icesi.edu.co/revistas/index.php/estudios_gerenciales/article/view/214/212)

Pérez, G., (2007). *Historia, geografía y puerto como determinantes de la situación social de Buenaventura*. Retrieved from [http://www.banrep.gov.co/docum/Lectura\\_finanzas/pdf/DTSER-91.pdf](http://www.banrep.gov.co/docum/Lectura_finanzas/pdf/DTSER-91.pdf)

Proinvex Panamá (2015). *Perspectivas Económicas y de Inversión Extranjera directa en Panamá*. Retrieved from <http://www.portugalexportador.pt/wp-content/uploads/2016/01/PANAMA- -PROINVEX.pdf>

El País. (2014). Más plata para doble calzada al pueblo de Buenaventura. *El País*. Retrieved from <http://www.elpais.com.co/elpais/valle/noticias/plata-para-doble-calzada-puerto-buenaventura>

Rodríguez, M. (2011). *Los puertos y su gran potencia de desarrollo*. Retrieved from <https://www.bgeneral.com/Revista/articulos/2011/2011-06/Puertos.asp>

SIC, (2014). *Sector Portuario de Colombia e incidencias de las Políticas en la SPRBUN*. Retrieved from [http://www.sic.gov.co/drupal/recursos\\_user/documentos/promocion](http://www.sic.gov.co/drupal/recursos_user/documentos/promocion)

[competencia/Estudios Economicos/Estudios Economicos/Estudios Merca  
do Puertos.pdf](#)

Tejeira, J. P. (2010). *PANAMÁ : Construyendo una Plataforma logística Global.*

Retrieved from [http://casamericalatina.pt/wp-  
content/uploads/2014/02/panama3.pdf](http://casamericalatina.pt/wp-content/uploads/2014/02/panama3.pdf)

Trade & Logistics Innovation Center, (2011). *Puertos Marítimos.* Retrieved from

<http://www.ciltec.com.mx/es/infraestructura-logistica/puertos-maritimos>

UNCTAD. (2015). *El transporte marítimo y la política climática en un momento decisivo, según un informe de la UNCTAD.* Retrieved from

[http://unctad.org/es/Paginas/InformationNoteDetails.aspx?OriginalVersionI  
D=66](http://unctad.org/es/Paginas/InformationNoteDetails.aspx?OriginalVersionID=66)

USAID. (2010). *Diagnóstico del Municipio de Colón.* Retrieved from

[http://www.alcancepositivo.org/Documentos/Diagn%C3%B3stico\\_Col%C3  
%B3n\\_Panam%C3%A1\\_version\\_final.pdf](http://www.alcancepositivo.org/Documentos/Diagn%C3%B3stico_Col%C3%B3n_Panam%C3%A1_version_final.pdf)

Valencia Llano, A. (2014). Los orígenes coloniales del Puerto de Buenaventura.

*Historia y Memoria*, (9), 221–246. Retrieved from  
<http://www.redalyc.org/pdf/3251/325132510008.pdf>

Worrell, P. A. (2010). *Las medidas en frontera de la propiedad intelectual en la zona libre de Colón. PhD Proposal.*

Zonalibreinfo. (n.d.). *Ventajas de la Zona libre de Colón.* Retrieved from

CONTRIBUTIONS OF PUERTO COLON AND THE PORT OF BUENAVENTURA TO THE  
ECONOMY OF THEIR RESPECTIVE COUNTRIES

<http://www.zonalibreinfo.com/zonalibre-ventajas.html>