



# **I biotrade; flowers and native foliages of Antioquia.**

**David Nelson Pérez Coneo**

**María Cristina García Franco**

**Richard Oswaldo Taborda Martínez**

University Institution Esumer  
Faculty of International Studies  
Medellín, Colombia

2016

# **I biotrade; flowers and native foliages of Antioquia.**

**David Nelson Pérez Coneo**

**María Cristina García Franco**

**Richard Oswaldo Taborda Martínez**

Research work presented to choose to the title of:

**International negotiator**

The director (a):  
Federico Alonso Atehortúa Hurtado  
Magister

Line of Investigation:  
International business

University Institution Esumer  
Faculty of International Studies  
Medellín, Colombia

2016

Educational Institution ESUMER

This work there is dedicated to these persons combatants who have extracted forward the biocommerce especially the market of the flowers, which in spite of the conditions have persevered and fought to obtain its achievements.

## Thank

In this space I want to express my deeper gratitude to God, family and to all these persons who with its support allowed that this work to be made possible, principally to the director of this investigation Dr. Federico Atehortúa for its pursuits, and continuous supervision but especially for its support and the constant motivation so that this work investigativo was becoming true.

Also I want to be grateful infinitely to my partners of thesis Maria García and Richard Taborda since there are a fundamental piece in the development of this work, because with dedication and the effort realized today we are achieving it.

To all of them, thank you.

David Pérez.

Firstly I am grateful to God, for the experiences lived in the university and thank you this one for I am allowed to be her part and turn into a big professional. My fundamental parents in this process, to my mother for there is obstinate the value of the work and the importance of straining therefore it is about to become, to my father for supporting me every day, on having given me fortitude and many motivation.

Also I would like he is grateful to my adviser Dr. Federico Atehortúa, for its effort and dedication in all this process, its knowledge, experience led us to realizing a good research work, big admiration and respect for him.

Finally him to be grateful to my partners and friends, David Pérez and Richard Taborda, who were present in all this research work and along with them we live through the experience of a work of grade.

Infinite Thanks to all those who did part of this big experience.

Maria García.

This space becomes short to be grateful to all the persons that we met in the process of search of information and who without any egoism wanted to share its knowledge so that this work is possible.

I am grateful to our guide, the doctor Federico Atehortua, who supported us at all times and a possibilities fan opened us for our work, to my partners and friends Maria Cristina Garcia and David Pérez because this work would not have been possible if we were not a big team of work.

Special gratitude to the librarian of the Botanical garden of Medellin, Viviana Sánchez, for its support and pursuit in the process.

Richard Taborda.

**Abstract:**

In this work the Biocomercio of flowers and foliage of Antioquia directed to export trade in the period 2013- 2016 is described , identifying strengths , weaknesses opportunities and threats from both the floriculture sector of our country, and the production and distribution of flowers and greens in Antioquia.

**Keywords:**

Flowers, foliage, biodiversity, biocommerce, foreign trade.

## Content

1. Formulation of the Project.....	14
1.1. Precedents .....	14
1.1.1. The State of the.....	14
1.2. Exposition of the problem .....	20
1.3. Justification .....	20
1.4. Targets.....	21
1.4.1. <i>General target</i> .....	21
1.4.2. <i>Specific target</i> .....	21
1.5. Methodological frame .....	22
1.5.1. <i>Method</i> .....	22
1.5.2. <i>Methodology</i> .....	22
1.6. Scopes .....	22
2. Strategic diagnosis of the biocommerce of flowers and foliages in Antioquia.....	24
2.1. Main characteristics of the sector of biocommerce. ....	24
2.2. The international trade of flowers and native foliages in Colombia and in Antioquia	28
1.2.1.1. HELICONIAS .....	32
1.2.1.2. ORQUÌDEAS.....	33
1.2.1.3. BROMELIAS .....	35
1.2.1.4. ANTURIAS .....	36
2.2.3. Native foliages. ....	37
2.2.4. Climatic conditions of the cultivation of flowers and foliages. ....	40
2.2.5. Transport. ....	40
2.3. Normative frame.....	41
2.3.1. General requisites for the mobilization of plants, national or internationally.....	43
2.4. ANALYSIS DOFA.....	46
2.4.1. FORTITUDE .....	46
2.4.2. WEAKNESSES.....	47
2.4.3. OPPORTUNITIES.....	48
2.4.4. YOU THREATEN.....	49



---

2.5. Analysis of the Information: Strategies proposal for the biocommerce of flowers and foliages .....	51
2.6. Finds .....	53
2.7. Conclusions and recommendations.....	54
2.7.1. Conclusions .....	54
2.7.2. Recommendations .....	55
3. Bibliography.....	56
4. ANNEXES .....	59

## List of Figures

<i>Figure 3 Exportation for type of flower.....</i>	<i>27</i>
<i>Figure 4 Colombian exports of flowers 2014-2015.....</i>	<i>30</i>
<i>Figure 5 Flowers species in the regions of Colombia.....</i>	<i>31</i>
<i>Figure 6 Heliconias.....</i>	<i>32</i>
<i>Figure 7 Orquídeas.....</i>	<i>33</i>
<i>Figura 8 Bromelias.....</i>	<i>35</i>
<i>Figure 9 Anturias.....</i>	<i>36</i>
<i>Figure 10 Foliage of tropical court.....</i>	<i>38</i>
<i>Figure 11 Colombian exportation of foliages 2014-2015.....</i>	<i>39</i>

## List of stage

<i>Table 1 World exportation of flowers.....</i>	<i>26</i>
<i>Table 2 Main flowers cultivation.....</i>	<i>27</i>
<i>Table 4: Exports for dex cut fresh flower.....</i>	<i>28</i>
<i>Table 5. Main exportation countries.....</i>	<i>29</i>
<i>Table 6 Colombian exportation of flowers 2014-2015 (value in dollars).....</i>	<i>30</i>
<i>Table 7 Basic information of the heliconias.....</i>	<i>32</i>
<i>Table 8 basic information orchids.....</i>	<i>33</i>
<i>Table 9 Basic information Bromelias.....</i>	<i>35</i>
<i>Tabla 10 Información básica de las Anturias.....</i>	<i>36</i>
<i>Table 11 Exportation of foliages 2014-2015 (value in dollars).....</i>	<i>39</i>
<i>Table 12 Tariff classification of the flowers and native foliages.....</i>	<i>42</i>
<i>Table 13: Minimal descriptions of the product.....</i>	<i>43</i>
<i>Table 14 Countries with phytosanitary protocol.....</i>	<i>44</i>

## List of abbreviations

APC: Presidential agency of International cooperation of Colombia

CBC: Corporation Biotraded Colombia

QUOTE: Convention on the International trade of Species Threatened with Fauna and Flora Silvestres

CORANTIOQUIA: Regional Autonomous corporation of the Center of Antioch

DIAN: Direction of Taxes and National Customs

ICA: Agricultural Colombian institute

MADS: Department of Ambience and Sustainable development.

GENTLE: Managerial model of Management Agroindustrial.

MSF: System of Sanitary and Phytosanitary Measurements

PABE: Program of Acceleration of Bio-companies

PNUMA: Program of the United Nations for the Environment.

SIG: Integrated system of Management.

UNCTAD: Conference of the United Nations On Commerce and Development.

USD: Dollar

## Introduction

Colombia, a country with countless wealths in biodiversity, is recognized worldwide by the beauty of its flowers and the flavor of its coffee, these turn out to be the best modality of the country on the different markets.

Being the most exporting second flowers country in the world and main distributor on markets like the American and Canadian, the country is postulated like a big modality on a global scale in the bought flower-grower, made use the wealth in flora with which it is counted and thinking about how to improve in its internal politics of commerce, which with the suitable adjustments will help to impel and invigorate the local economy.

This investigation had to describe for an object the state of the Colombian market with regard to the commercialization of flowers and native foliages of the region of Antioch, bearing in mind that the sector Colombian flower-grower is recognized for being one of the most dynamic and influential areas of the economy of the country.

The state of the Biocommerce was evaluated in the region, for such an effect there was done a search of primary and secondary sources. The text is divided in the following chapters.

Chapter 1: There are described the precedents and the state of the art as regards the biocommerce in Colombia, in Colombia, projects executed by different entities are mentioned as the Corporation Biotraded Colombia, directed to the use of the resources with which the country is provided to impel the economy of the sector flower-grower. In the methodological frame the skill is informed used for compiling

information and in accordance with this one the generation of conclusions. There are described the targets that led to realizing this investigation and the justification of the porqué the market of flowers and foliages natives can be a source representative of employment and commercial diversification, where one thinks about how to make use of the knowledge of the sector of the agriculture.

Chapter 2: There is done a diagnostic analysis of the biocommerce of flowers and native foliages in Colombia, showing the increase of the market in the last years, the positive impact that it has presented for the economic growth of the sector, the recognition on a global scale with which there are provided the flowers cultivated in the country, the main characteristics of the sector and the opportunities to make use of the market of the native flowers.

Also there is realized the description of the native species of flowers and foliages that are marketable, the climatic characteristics and geography in which they are cultivated, the main destinations to which they are exported, it forms of exportation, requisites and normative frame in which these products must take refuge. In this chapter also there is the realized analysis of the fortitude, weaknesses, threats and opportunities of the market of flowers and native foliages of the region of Antioch.

The biocommerce of the native flowers of the region of Antioch appears like an excellent alternative to diversify the bought flower-grower, it will serve as economic promoter for the country and will support the growth of the sector of the agriculture.

# 1. Formulation of the Project

## 1.1. Precedents

The topic of the biocommerce is relatively new in the ambience of the International Business in Colombia. Gradually it has made way as the paradigm of the "Sustainable development" has gained space in the public politics and in the interest of the companies and of the society. Consequently with the previous thing, at once there appears a brief review of works that have been carried out in related topics to the one that here will talk each other.

### 1.1.1. The State of the

According to "I Biotrade Colombia", a nongovernmental organization specializing in the topic, "biocommerce is the set of activities of compilation, production, prosecution and commercialization of goods and services derived from the native biodiversity, under criteria of environmental, social and economic sostenibilidad." (Biocomercio Colombia, 2014). In this case the biocommerce includes a wide economic activities status, from the primary sector of the economy (compilation), the secondary sector (production and prosecution) and the service industries (commercialization).

The page of "I Biotrade Colombia" it shows projects that have been developed over the course of time, as regards the biodiversity in Colombia and the use of the native resources to realize different offices and to improve the sustainable economic aspect.

One of them is the project APC (the Presidential Agency of International cooperation of Colombia), joined the Corporation

Biocommerce Colombia 015 signed the Agreement of Contribution of Compensation, in the frame of the project GEF-CAF: "Financing simplification for business of biodiversity and support to the development of activities of the market in the Andean Region 2010 - 2014", to be implemented by the Corporation "I Biotrade Colombia" This project GEF-CAF-PNUMA has been endorsed by the Department of Ambience and Sustainable development-MADS and executed by the Fund Colombia (Minambiente, 2010)

Additionally the Corporation Biotraded Colombia (CBC) counts with an initiative Program of Acceleration of Bio-companies (PABE) with the entities support like the Department of Ambience and Sustainable development, Impact Hub Bogota and Connect Bogota Region. This program is directed to emprendimientos that takes time in the sector Tourism of Nature, Hortofrutícola and Natural Ingredients (cosmetics and cleaning), which already has a group of work established, at an important level in the part organizacional, financier of marketing and sales (Biocomercio Colombia, 2013)

Other aspects mentioned in "I Biotrade Colombia" there are 7 beginning of the biocommerce and the concept biodiversity. Each one brings with it sostenibilidad and and I respect for the different components of the biodiversity

I commence 1: conservation of the biodiversity; this beginning wants that all the companies and organizations contribute to the support of the biological diversity in all its dimensions (genes, species, ecosystems).Principio 2. Sustainable use of the biodiversity: this beginning refers that the products of the biocommerce are obtained so that the sostenibilidad could be demonstrated. I commence 3. Just and equitable

distribution of benefits derived from the use of the biodiversity, "it refers to the access and to the distribution of the benefits in the frame of the genetic resources, demanding that it should be counted, for example, with a previous informed assent and with terms mutually agreed between the parts". I commence 4 socioeconomic Sostenibilidad (of management, productive, financial and of market), "the competitiveness in the ambience of the biocommerce should result in that the products handled sustainably manage posicionarse on the specific markets and Beginning is supported in them in the sufficient time to generate the benefits been expected" 5. Fulfillment of the national and international legislation; I commence 6. Respect of the rights of the actors involved in the biocommerce; I commence 7. Clarity on the land tenure, the use and access to the natural resources and to the knowledge. (Biocomercio Colombia, 2013)

In the year 2004 the Institute Alexander von Humboldt, accompanied by Pro-Export (today Pro Colombia), inside the investigation in Sustainable Biocommerce, realized a process of selection and sectors evaluation, to choose that one in which the support would focus in the context of the "BiotradeFacilitationProgram" of the UNCTAD. For this there were carried out several workshops where there took part each of the sectors chosen by means of a representative. The elected regions were Antioch, Vale of the Cauca, Quindío, Risaralda and Cundinamarca.(Díaz, 2006)

The topic of biocommerce of flowers and native foliages in Antioch has been a relatively slightly explored topic, nevertheless in a preliminary search of the information related to the topic to be treated in this investigation, there were consulted some previous works that have developed on the same one, for example, in the Corantioquia library there were different electronic references based on a seminar of



biocommerce where they raise the roll of the biocommerce as a tool of sustainable use and new market opportunities in countries with big biodiversity. (CORANTIOQUIA, 2005)

In the same library called “sustainable Biocommerce finds a book: biodiversity and Development in Colombia”, where there show themselves differently topics related to the Biocommerce, split into chapters, each of different sustainable products, as natural dyes, crafts, native fruits, medicinal plants and other topics related to the biodiversity and the biological resources of Colombia. Inside these topics also there are the flowers and native foliages that it is the topic of this investigation.

According to this book, the big wealth of flowers and foliages they are present in many places of Colombia, especially in the East Antioqueño where there are cultivation of plants like Heliconias, Orchids, Bromelias and Anturias, there are the main source of revenue of many rural families and these flowers turn part of thousands of decorations in diverse hearths in the world (Ortega, 2007).

Pages like “Andean Biocommerce”, show analysis and information of native flowers, main exportation countries, and maps of the sectors with more sowed with these in Colombia, in the same way a file is in the web called “Dimensionamiento of the demand of flowers and tropical foliages on the national market and exploration of new channels of commercialization in Colombia” (Biocomercio Andino, 2013)

In the year 2015 the Chamber of Commerce of Bogota prepared a manual of exports of flowers and foliages, this work emphasizes the importance that has for Colombia the commerce of flowers and foliages, by means of a program of agricultural support and agroindustrial called “Managerial Model of Management GENTLE Educational Institution ESUMER

Agroindustrial”, this model supports the companies of the sector agroindustrial so that its competitiveness increases across the innovation, strengthening the productive and sustainable offer. ADDITIONALLY GENTLE it offers services in topics of managerial management, management of managerial groups, commercial management, management of the quality, management of the information and management of the innovation (Núcleo Ambiental S.A.S;Cámara de Comercio de Bogotá., 2015)

The Department of Ambience and Sustainable development - MADS, in company of, the presidential agency of International cooperation of Colombia-APC and the Corporation Fund Biotraded Colombia, they designed a tool that will allow to observe the different companies, products and services with green business initiative, exhibited in Briefcase of Goods and Services of Green Business and exhibitors' catalog BIOexpo 2015. The MADS realized BIO expo Colombia 2015 which was carried out in the Botanical garden of Bogota from November 5 until November 7, 2015, with the target to promote processes productively sustainable, making use this way of the natural resources and to benefit from the international market since this type of sustainable products is a potential it is this market(Minambiente, 2016)

In addition to the previous reviewed works, at once there appears a brief review of thesis or works of grade that have been carried out in related topics to the one that here will talk each other. One of them is the thesis “Impact of the current exchange diet in the economy of the sector Colombian flower-grower” realized in the year 2013, this work announces the relation that has the exchange diet as for exchange politics and devaluation of weight opposite to the dollar, in the sector flower-grower of Colombia, also it shows the agreements of free trade with which Colombia is provided like, the United States, Canada and the European Union that they improve the

competitiveness both in the exports and in the imports of inputs and teams, to produce the flowers, reducing the costs of production and commercialization, doing that the product diminishes its price (Guarin, 2003)

Ana Maria Flórez Ortiz presents an essay of option of grades, of the Military University New Granada of Bogota realized in the year 2015, called “an Importance of implementing in the organizations flower-growers of Colombia an integrated system of management as benefit to penetrate into the international trade”. Inside this essay one develops important factors for the growth of this sector as there it are the Treaties of Free trade and its benefits, is demonstrated how during all these years principally from 2010 till now, the sector flower-grower of Colombia has come developing in a continuous way, because of it the idea of implementing an integral management system. An Integrated System of Management (SIG) is a platform that allows to join the systems of management of a company that previously they were employed at independent form with the intention of reducing costs and of maximizing results (Instituto para la Calidad PUCP, 2012), so that the companies of this sector have more opportunities and become more competitive on the international market of a way sustainable and compromised with the environment and the quality. (Ortiz, 2015)

## **1.2. Exposition of the problem**

What is the current state of the business of Biocommerce of flowers and native foliage of Antioquia?

## **1.3. Justification**

### **Theoretical justification**

This work is going to reach port to the development of a line of specific knowledge on biocommerce, which has been little explored in the frame of the international business. For the institution, it is going to serve of modality in the agros business, which it corresponds to one of the new approaches of the university.

### **Social Justification**

In the country, the environmental commerce can be an important source of commercial activities and employment, making use this way of the biodiversity and the wealth of soils with which the country is provided.

Being the society a fundamental factor for the compilation of information and the development of this investigation, for what one looks with this work is to offer to them a major knowledge and a few possible progress to the sector flower-grower. The biocommerce market has a very big potential, where the peasants with small plots have the opportunity to be useful and to grow in its cultivation. Also with the growth of the biocommerce it might generate a very high percentage of employment.

## **Personal justification**

The study of the biocommerce in the country a topic is that has not been much docked or entered, with this one thinks about how to explore possibilities, alternatives that there gives the market of flowers, the versatility on having made use of the environmental diversity with which it is counted and the knowledge acquired by generations of growers.

## **1.4. Targets**

### **1.4.1. General target**

To determine the current state of the business of Biocommerce of flowers and native foliages of Antioch.

### **1.4.2. Specific target**

- To recognize the international and national market of flowers and of biocommerce of flowers and native foliages.
- To carry out an analysis and diagnosis of the market of flowers and native foliages from Antioch to the rest of the world.
- To formulate strategies that allow to promote the biocommerce of flowers and native foliages in Antioch on a global scale.

## 1.5. Methodological frame

### 1.5.1. *Method*

The method that was used is the INDUCTIVE method, in which general conclusions are expressed from the observation of particular or specific information.

### 1.5.2. *Methodology*

**Compilation of Secondary information:** There were consulted secondary sources as research works or publications (Books, digital seminars) on the current state of the biocommerce of flowers and native foliage of Antioch in the national and international ambience.

**Compilation of Primary information:** Access had been to information of libraries and places webs (unions, associations), it presses.

**Field work:** Some interviews were carried out to actors of the market of flowers to complete and to validate the information of primary sources. The interviews were carried out on the base of a scheme of questions previously prepared.

## 1.6. Scopes

This work takes the department of Antioch as a geographical scope. This area was chosen by its big diversity in flora, which is of the richest of the country and always showing its differences thanks to the varied climatic apartments with which the department is provided.

As for the temporary scope, they took last two years and a half (2013-2016), since for the sectorial dynamics the primary information of previous years can already not be representative of the state of the sector.

## **2. Strategic diagnosis of the biocommerce of flowers and foliages in Antioquia**

### **2.1. Main characteristics of the sector of biocommerce.**

The flowers are very important marketing products for countries that are in development route, some of the examples are America of the south and head office, Africa and Middle East. This market niche goes of the hand with the increasing consumption of Europe, America of the north and Japan.

The international flowers market is hard sectorizado, for the region of Asia the main providers are Japan and China, for Europe its main exporters are Africa, Middle East and Holland, while for the North American market the main providers are Colombia and Ecuador.

The commerce of flowers can be considered to be one of the biggest markets at present, a sector that moves the economy of countries as Holland, Colombia, Kenya, Ecuador, between others. It is a market that helps to strengthen the sector of the agriculture in the countries that make use of it, and that is characterized by the beauty of the nature.

Pitifully the governments usually do not give the economic support sufficient for the infrastructure to the sector of the agriculture, doing that only few ones could benefit from this economy in growth and increasing in some cases the breach of inequality of the market.

At present the main markets of Colombian flowers are the markets of North Americans (the United States and Canada), Russia, Japan, the United Kingdom, Spain and Holland. For the year 2014 1473 million dollars were exported in flowers cultivated in Antioch and Cundinamarca. (Minagricultura, 2015)



**It represents 1: Colombian exportation of flowers for destination****% participación en volumen 2014**

**Source:** (Andi, 2015)

The Colombian flowers are considered to be on the international market the best, for its standard high places of quality, for the variety and especially for being the most coloring.

Next one relates the main exporting countries of flowers of the world between the year 2009 - 2013 and the quantity of dollars generated in these deals.

**Table 1 World exportation of flowers**

Exportaciones mundiales de flores 2009-2013 (millones USD)						
Exportador	2009	2010	2011	2012	2013	Participación 2012
Mundo	7.355,00	7.589,00	9.082,00	9.294,00	s/i	100%
Holanda	3.620,00	3.692,00	4.973,00	4.602,00	3.814,00	50%
Colombia	1.049,00	1.240,00	1.251,00	1.270,00	1.334,00	14%
Ecuador	547,00	608,00	680,00	771,00	831,00	8%
Kenia	421,00	396,00	454,00	598,00	s/i	6%
Etiopía	132,00	144,00	169,00	526,00	s/i	6%
Bélgica	166,00	249,00	260,00	251,00	248,00	3%
Chile	2,90	3,70	3,40	2,60	2,90	0,03%

**Source:**(ODEPA, 2014)

More recent information of Minagricultura accounts that the exports of flowers for 2014 were 1.473 million dollars and in foliages the exports were 8.7 million dollars. About August, 2015 the exports of flowers were reaching the number for 930 million dollars and in foliages 6 million dollars.(Minagricultura, 2015)

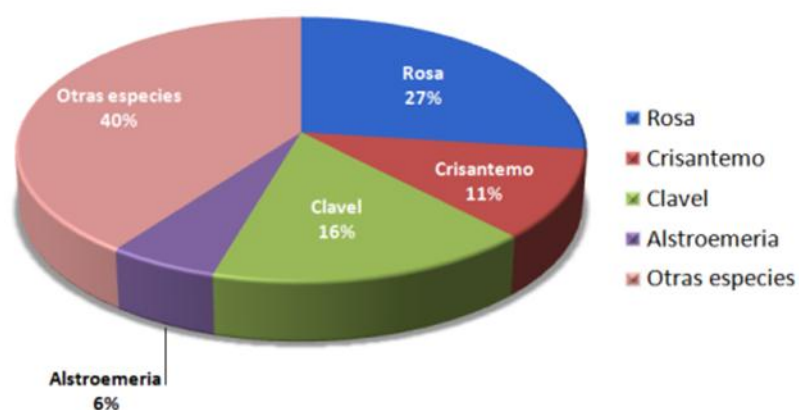
**Table 2 Main flowers cultivation**

<i>DEPARTMENT</i>	<i>% HECTÁRES</i>
<i>CUNDINAMARCA</i>	73,2%
<i>ANTIOQUIA</i>	23,8%
<i>EJE CAFETERO</i>	1,9%

**Source:** (Asocolflores, 2015)

In these three regions of the country one is provided with approximately 6600 hectares of cultivated area.

Nevertheless they are that the native flowers of the country are not most longed on the markets, the introduced flowers are more respondents and which major importance one gives them at the moment of choosing the cultivation to be sowed. (Asocolflores, 2015)

**Figure 1 Exportation for type of flower**

**Source:**(Asocolflores, 2015)

## 2.2. The international trade of flowers and native foliages in Colombia and in Antioquia

At national and international level what marks the tendency on the market is the competitiveness, this is the one that allows the position in local and foreign markets, for Colombia one of its strongest markets there are the native flowers, where it is provided with approximately 4.000 species of flowers of 30.000 patrollings in the world. (La República, 2012)

The native flowers or tropical flowers are a small market, both at national and international level, that's why they are not provided with a proper tariff game, at present there are located inside the tariff game 06.03.90.00.00 (Other cut flowers and cocoons of flowers adapted for bouquets or for ornamental, fresh, dry, whitened, impregnated or prepared intentions of another form).(BIOTRADE initiative, 2006). Based on this subgame, the exports realized by Colombia between the periods 2009-2012 were the following ones. To see table 4.

**Table 3: Exports for dex cut fresh flower**

January - December			
	Dollars	Kilograms	Units
<b>2009</b>	\$ 1.049.100.418,46	205.423.728,77	4.036.605.057,00
<b>2010</b>	\$ 1.240.009.630,47	220.031.898,12	4.445.911.521,00
<b>2011</b>	\$ 1.251.325.662,61	206.006.296,21	5.098.319.305,00
<b>2012</b>	\$ 1.270.007.438,98	201.949.063,51	3.628.729.223,00
<b>%</b>	1,49%	-1,97%	-28,82%

**Source:** (BIOCOMERCIO ANDINO, 2013)

Between the main markets international of native flowers the North American is, being this 75 %, Russia with 5,4 % of the exports and Japan with 4,4 %, these are three main destinations.(BIOCOMERCIO ANDINO, 2013)

**Table 4. Main exportation countries.**

COUNTRY	ENTIRE	% PART
United States	\$ 960.766.729,72	75,7
Russia	\$ 68.260.093,60	5,4
Japan	\$ 56.049.578,84	4,4

**Source:** (BIOCOMERCIO ANDINO, 2013)

In addition to exporting principally to these countries, a report found in the Magazine Market indicates that between the year 2013 and 2014 it was exported to 14 new countries as they it are: South Africa, Turkey, the Bahamas, Liberia, Uzbekistan, Belize, Serbia and Montenegro, Morocco, Islands Marshall, Pakistan, Cyprus, Latvia, Honduras and Maldives (MERCADO, 2015)

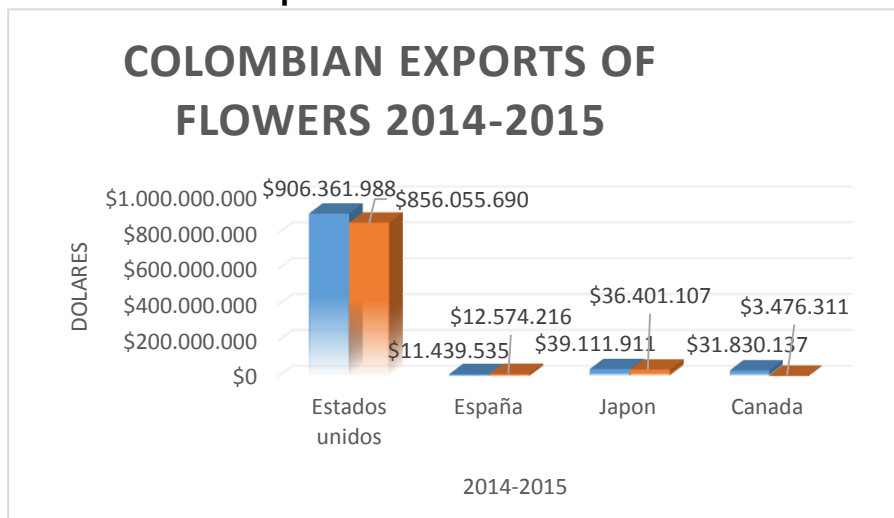
For the year 2014 and 2015 it is possible to observe that the values in dollars diminished with regard to the previous years and taking as an example the United States that is the main importer.

**Table 5 Colombian exportation of flowers 2014-2015 (value in dollars)**

Country	Year		percentage
	2014	2015	
United States	\$906.361.988	\$856.055.690	94%
Spain	\$11.439.535	\$12.574.216	1%
Japan	\$39.111.911	\$36.401.107	4%
Canadá	\$31.830.137	\$3.476.311	0,38%

**Source:** Proper making, from the information of (PROCOLOMBIA, 2015)

Taking this information it is possible to notice that the main market of the Colombian exports is the United States and Canada, for October, 2015 the values in exported dollars were of 856`055.690 (PROCOLOMBIA, 2015)

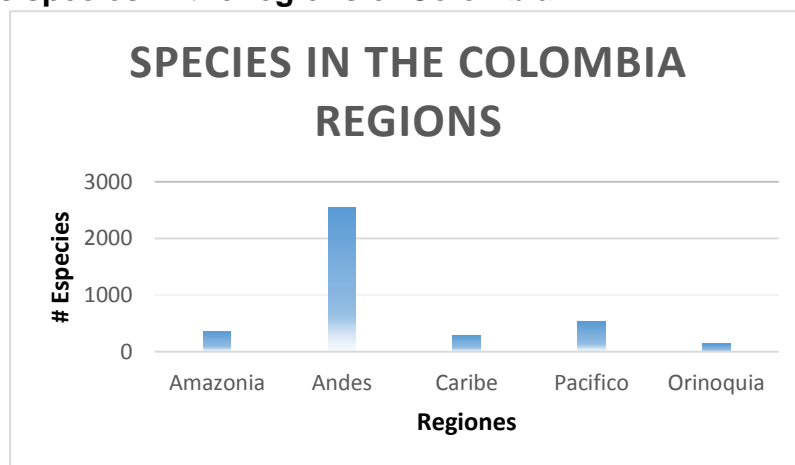
**Figure 2 Colombian exports of flowers 2014-2015**

**Source:** Proper making, from the information of (PROCOLOMBIA, 2015)

Analyzing the previous information it is possible to see that there is no fall for this subgame and that the flowers market is a good alternative, for the Colombian exports, for the small, medium-sized or big producers.

Taking the previous information as a base, it was investigated and one found that the Andean region has 77 % of this subgame having Antioch 66 % of the whole of these species, continued by Cauca, Hit, Cundinamarca, Santander and Vale of the Cauca inside the Andean region(MINAMBIENTE; UNAL, 2015)

**Figure 3 Flowers species in the regions of Colombia.**



**Source:**(MINAMBIENTE; UNAL, 2015)

Inside the species that Colombia has, 1.216 are native species, what there adds 37 % where the Andean region has the widest number of endemic species (944) that there forms 78 % of the species of Colombia, in spite of having a good number of these species they are not most commercialized.

Inside the most representative native species and those that more are commercialized on the market they are: Orchids, Heliconias, Bromelias and Anturias.

## 2.2.1. Description of the most commercialized main native species

### 1.2.1.1. HELICONIAS

Figure 4 Heliconias



Plant with major demand on the market is the platanillo or Heliconia, this plant grows of spontaneous form in the shore of ways and rims of forest and gorges. It has the only characteristics one of them is that its aspect similar to “small flares”. This plant has characteristics

<b>Scientific name</b>	Heliconia orthotricha tricolor
<b>Orden</b>	Zingiberales
<b>Family</b>	Heliconiaceae

morphologic with other plants, that's why the botanical include science inside the order Zingiberales, of this type approximately 90 represented ones exist in 8 families(Ortega, 2007, pág. 85)

Table 6 Basic information of the heliconias



### 1.2.1.2. ORQUÍDEAS

**Figure 5 Orquídeas**



Source: propia

They belong to the family of the Angiosperms of which 25.000 species have been described, but in addition to this the producers and laboratories have created 70.000 artificial hybrids obtained by the wild crossing of species with cultivated others. The majority they are epifitas, this means that there grow the branches or stems of other plants and trees, of equal someone grow in the ground and others in the rocks.(Ortega, 2007, pág. 86)

**Table 7 basic information orchids**

<b>Scientific name</b>	Cattleyatrianae
<b>Orden</b>	Asparagales
<b>Family</b>	Orchidaceae

These flowers are showy for its living colors, its forms, its styles, in addition to which they are only in its species, but inside this group the showiest and more longed there are the orchids that it is a quite wide group but that inside this group most commercialized are: cymbidium, the cattleyas, dendrobium and vanda (La República, 2012)

At present in Colombia the wild orchids compilation is prohibited since this species is in extinction route. According to the Institute Alexander von Humboldt, in company with CORANTIOQUIA, in specializing cultivation one has managed to obtain species variety, to commercialize at national

and international level. These plants are important for the Colombian market, that's why the country exists associations that one dedicates to the conservation, development and care of these species. An example is the Colombian Society of Orquideologia, born in 1964 with the initiative to create conscience on the care and conservation of the orchids, promoting the cultivation and commercialization of these species, expanding to international market, promoting the respect and it takes care for the way of ambiences (Sociedad Colombiana de Orquideología, 2016)

### 1.2.1.3. BROMELIAS

**Figura 6 Bromelias**



It does part of the family of the pineapple, these plants are almost exclusive of America, our country occupies the second place with more than 492 species, her 37 % endemic. It is a beautiful species since it has its sheets in the shape of rosette, that's why it turns it would reserve of water and it is a productions place many living beings as seaweed, fungi and insects.(Ortega, 2007, pág. 86)

**Table 8 Basic information Bromelias**

<b>Scientific name</b>	Bromelia
<b>Orden</b>	Poales
<b>Family</b>	Bromeliaceae

#### 1.2.1.4. ANTURIAS

**Figure 7 Anturias**



<b>Scientific name</b>	Anthurium
<b>Orden</b>	Alismatales
<b>Family</b>	Araceae

**Source:**radikewl.com

**Tabla 9 Información básica de las Anturias**






A characteristic of the Anturias is its capacity of life and resistance, it is a genre of the family Araceae that has 600 species. Its tonalities go from red, pink, orange and white. By all these characteristics they are much longed on the national and international market (Ortega, 2007, pág. 87)

### **2.2.3. Native foliagees.**

The foliagees are parts of plants that are used for decorations making in bouquets, floral arrangements that give him to the flowers a sense showier and more centred to the flowers.

The foliagees are not a market so wide as the flowers but in spite of this it is a market that exports under the tariff position 0603109040. The foliagees as the flowers are an interesting market to exploit being this a market much easier to exploit because its harvest is not so pressed by the different sizes that they handle, as well as the Colombian climatic conditions favor the harvest of these. Due to the size of these, the cost as its transport is much more reduced to be able to be commercialized. (BIOTRADE initiative, 2006).

Figure 8 Foliage of tropical court

FOLLAJE DE CORTE TROPICAL	
<b>Palma canoa</b> Orden: Asparagales Familia: Hypoxidaceae Género: Molineria	 Figura 23. Palma canoa. Fuente: (ABBUA, 2014)
<b>Palma cyca</b> Orden: Cycadales Familia: Cycadaceae Género: Cycas	 Figura 24. Palma cyca. Fuente: (Grupo siempre verde, 2014)
<b>Palma iraca</b> Orden: Pandanales Familia: Cyclanthaceae Género: Carludovica	 Figura 25. Palma iraca. Fuente: (Herbario virtual, 2014)
<b>Palma areca</b> Orden: Arecales Familia: Arecaceae Género: Areca	
<b>Pándanos</b> Orden: Pandanales Familia: Pandanaceae Género: Pandanus	 Figura 27. Pándanos. Fuente: (Flores y follajes tropicales, 2014)

The main countries to which Colombia exports its foliage can be seen in the table 11.

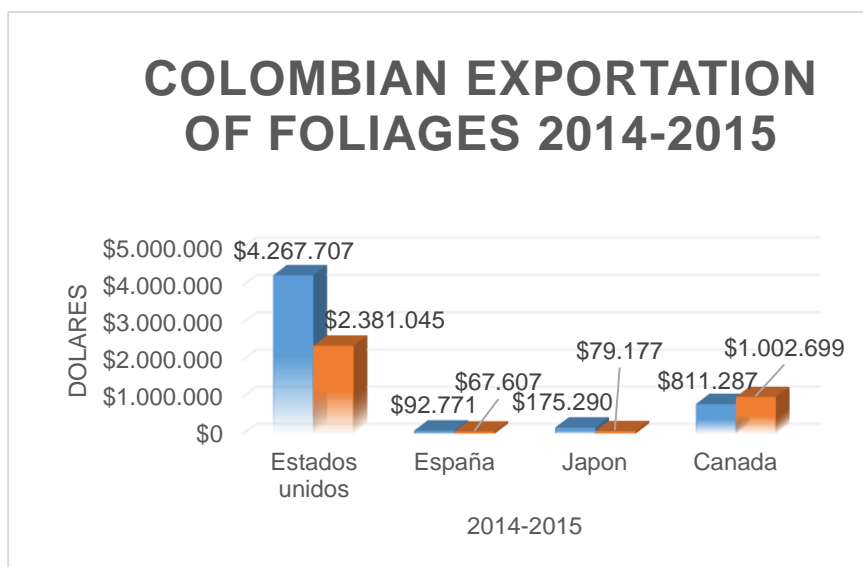
**Table 10 Exportation of foliage 2014-2015 (value in dollars)**  
Year

<i>Country</i>	<b>2014</b>	<b>2015</b>
<i>United States</i>	\$4.267.707	\$2.381.045
<i>Spain</i>	\$92.771	\$67.607
<i>Japan</i>	\$175.290	\$79.177
<i>Canadá</i>	\$811.287	\$1.002.699

**Source:** proper, taken making of (PROCOLOMBIA, 2015)

The multiple exports of foliage go of the hand of the exports of flowers since there are a complement of these.

**Figure 9 Colombian exportation of foliage 2014-2015**



**Source:** Proper making, from information of (PROCOLOMBIA, 2015)

#### **2.2.4. Climatic conditions of the cultivation of flowers and foliages.**

To have a good flower species with a good quality, this one must be located in a place with a good luminosity where the beams of the sun come to him but not with big force, although these species are of diverse climates; warm, moderate and cold since the majority they come from tropical regions they need a high moisture in its cultivation. Inside these determine also we find the ventilation in which it is necessary to sow, to be able to survive and bloom it is species they need a highly drafty place and in one state irrigation not to allow to dry its fertilizer (INFOJARDIN, 2015)

To realize and to obtain a good foliage it is necessary to have a tropical climate, with a temperature between 17 to 35°C, with a luminosity of 30 % to 40 % of light where the moisture is between 70 % 90 % (FLORES ORGASMICAS, 2010) For the sowing of both the fertilization must be done depending to the study and its respective analysis of the already investigated soil. (FLORES ORGASMICAS, 2010)

#### **2.2.5. Transport.**

To have a good transport of the flowers and that are not going to be damaged or wither in the exit stretch up to its final client, the flowers must be transported in temperatures that are over 10°C, this while they take the necessary climate to be moved. (Cámara de Comercio de Bogotá, 2015)

The native flowers that are exported do not have a way of definite transport nevertheless, the native flowers for have a life shorter that the others are usually transported by the air way, but by economy it is transported in marine way in addition to the conditions and the large numbers that can be transported by this way. (Magnum Logistics)



### **2.3.. Normative frame.**

This type of markets as it is the flowers and native foliages do not have a high percentage in the Colombian exports that's why the only tariff games do not exist for the species (these are exported by tariff games that group other flowers different from the conventional ones) due to this it is a little difficult to demonstrate exactly the quantity and the exact volume of this type of exports. The exports, they register inside the following game: 06.03.90.00.00" Other cut flowers and cocoons of flowers adapted for bouquets or for ornamental, fresh, dry, whitened, impregnated or prepared intentions of another formaya vukvo". (Dirección de Impuestos y Aduana Nacional DIAN, 2007)

**Table 11 Tariff classification of the flowers and native foliages**

<i>TARIFF CLASSIFICATION</i>	
<b>TECHNICAL NAME OF THE PRODUCT</b>	Living plants and products of the flower growing Flowers and cocoons cut for branches or adornments, fresh, dry, whitened, dyed, impregnated or prepared of another form. - The others
<b>CODE</b>	06.03.90.00.00
<b>DIET</b>	Free Import
<b>IVA</b>	15%
<b>TARIFF TAX</b>	5%
<b>DOCUMENTS SUPPORT</b>	Document of Phytosanitary Requisites of Import - Agricultural Colombian Institute. So much for exports as imports.
<b>TARIFF TREATMENT</b>	BOLIVIA, ECUADOR AND PERU 0,00 % (I MATCH OF CARTAGENA) ANTIGUA AND BARBUDA, BARBADOS, BELIZE, DOMINICA, GRANADA, MONSERRAT, ISLAND AND ANOTHER 0.00 % (AGREEMENT CARICOM) ARGENTINA, BRASIL0, 0.00 % (MERCOSUR) CHILE, MEXICO 0,00 % AND PARAGUAY 0.65%EXPO AND FOR IMPO 13.00 %. ARGENTINA, BRAZIL 4.40 % EXPO 88.00 % IMPO. EUROPEAN UNION 0.00 %

**Source:**(Dirección de Impuestos y Aduana Nacional DIAN, 2007)

It did the updated consultation to itself and one found that they have not changed by no means any of the information from 2007.

For every tariff game established in the DIAN there exist minimal descriptions that the product must present an hour to be imported or exported and for partida06.03.90.00.00 are the following ones:

**Table 12: Minimal descriptions of the product**

*FOR IMPORT AND EXPORTS*

**Species; Variety; Formation; the State; Preparation; Presentation; Other characteristics; physical Packing; Durability**

---

**Source:**(Dirección de Impuestos y Aduana Nacional DIAN, 2007)

### **2.3.1. General requisites for the mobilization of plants, national or internationally.**

The exportation of flowers and foliages of one country is restricted to other, for illnesses or plagues that it can contain these plants, introducing them to the country of destination or importer. That's why the phytosanitary norms exist in many country. Of equal way Colombia is provided with the System of Sanitary and Phytosanitary Measurements (MSF) who consent in the essential rules for the regulation on harmlessness of the food and health of the animals and preservation of the vegetables. (minsalud, 2013)

**The Resolution 3973 of April 14, 2016**, established by the ICA, says "By means of which the Phytosanitary License is regulated for the Mobilization of Vegetable Material in the national territory", it establishes that the phytosanitary license for the internal mobilization of plants or plant products is the document that certifies the

conditions of the product and by this the transport is authorized at national level. It is provided with 12 articles where there are stipulated restrictions, sanctions, responsibilities, requisites and recommendations for expedition of the license and the handling of this one.

The countries establish their own norms from scientific knowledge to generate confidence between the merchants. According to the Agricultural Colombian Institute (ICA) the countries that demand phytosanitary protocol for any type of plant are the following ones:

**Table 13 Countries with phytosanitary protocol**

**Countries with phytosanitary Protocol**

<b>Argentina</b>	Flores fresca de corte
<b>Brazil</b>	Flores de alstroemeria
<b>Chile</b>	Flor de Corte
<b>EEUU</b>	Flores y Follajes
<b>México</b>	Ornamentales
<b>Panamá</b>	Flores y Follajes
<b>Paraguay</b>	Gypsophila spp, Rosa spp, Dianthus spp
<b>República Dominicana</b>	Flores de corte

**Source:** Proper creation from information of (Instituto Colombiano Agropecuario, s.f.)

All import, exportation, reexport or introduction proceeding from species protected by the Convention must be authorized by means of a system of authorization of licenses QUOTE (Convention on the International trade of Species Threatened with Fauna and Flora Silvestres) it is an international agreement coordinated between the governments. It takes as a purpose to stay awake why the international trade of specimens of animals and wild plants does not constitute a threat for its survival. Bearing in mind that the orchids are threatened, the Convention covers them. QUOTE it he submits the international trade of specimens of certain species to certain control panel (CITES, 2013)

## **2.4. ANALYSIS DOFA**

With the intention of analyzing the information that has appeared so far, an analysis “DOFA” is done next. This methodology is for the strategic planeación and it consists of the analysis of the external and internal environment of the situation under analysis (the biocommerce of flowers and foliage of Antioch). In the external environment the opportunities and the threats decide. And in the internal environment the weaknesses and the fortitude are analyzed. Then there is done a crossing of these two perspectives (intern and day pupil) to obtain strategies that stem of promoting the fortitude and of mitigating the weaknesses across the opportunities; to face the threats by means of the internal fortitude and to solve the weaknesses to attack the threats

### **2.4.1. FORTITUDE**

1. With the advances in the genetic engineering it is possible to strengthen and to do the native flowers more resistant, to lengthen the life time after the withered state to slow down, to improve the resistance to insects and to liberate to the plants of diverse pathogenic, we can find the company agrobiological (Plant S.A.S) laboratory that devotes itself to the investigation and production of biological material, located in Villavicencio.
2. Variety of flowers and foliage thanks to the diverse climates and thermal apartments with which the country is provided, as well as its geography and the wealth of the soils.
3. Generation direct work places, about 130.000 persons are the linked ones to the market of the flowers, generating stability and promoting the employment in rural areas of the country. (MINAGRICULTURA, 2015)

4. One of the main fortitude is the generation of feminine formal employment. In certain labor sectors one discriminates against them, be already for talking each other of heavy works or simply for thinking that they do not have the sufficient aptitudes to cover a work, nevertheless in the sector flower-grower the women are majority.

## **2.4.2. WEAKNESSES**

1. Investigation: lacking investigation in areas of commerce of flowers and foliages

2. The sostenibilidad of the sector every day becomes more complex, because the piled up losses, as the competition and the climate during the last times they have had consequences that reduce possibilities of competing in an international ambience. (Portafolio, 2015)

3. Restrictions for the Colombian florists, who have limitations to gain access on bank credits. These persons do not gain access to loans bank employee since they are not provided with the necessary requests, financial precedents and the monthly clear income are some of these requisites to gain access to a loan in Colombia and that many flower-growers does not have credit life or is not provided with a stable clear revenue to expire with the monthly payment

4. At present, native flowers of the region like the orchids, have a very short life time, what does exclusive flowers of collectors, who in many opportunities must wait years to see one of these plants blooming. This is one of the main motives of because some native flowers are not commercial on the market.

5. There are difficulties for the regional, national and international transport of flowers and wild foliage. According to the expressed for mister Francisco Villegas, Manager of Orquifollajes (Villegas, 2016), the processes are great to be able to transport a plant from certifications and permission up to the form as it transports it and where it transports it.

6. According to the interviews carried out (to see annexes), an important weakness is the contraband and illicit commerce of wild flowers that are commercialized at national and international level without the fulfillment of the existing regulation, what generates a disloyal competition for with the legal exporters.

7. Another important weakness is the excess of administrative procedures for the exportation. According to the shown for mister Francisco Villegas, owner and manager of the company Orquifollajes “At present only does an exportation a year to the United States for the saying previously the procedures are great ...” (Villegas, 2016)

### **2.4.3. OPPORTUNITIES**

1. It is a market that has not been much explored, this is because many of the native flowers of the region are not known on the international market.
2. It is possible to make use of the advances in the genetic engineering to give more fortitude and resistance to the native flowers and this way to generate a space on the international market. At present the flowering can go forward by means of genetic engineering, as improve some original characteristics of every plant, to facilitate the displacement and to lengthen the standard of living of each one (Benítez, 2005)



3. Also it might make use of this technology to create hybrids of showier flowers, modifying the tones of the sheets, the quantity of petals that would be born in the flowers or even realizing crossings between species, nevertheless the above mentioned it would change the extract of the native flower and it might take like a new flower, according to the interview realized to mister Francisco Villegas Orquifollajes s.a.s manager
4. There can take advantage the spaces that there offers the Department of Ambience and Sustainable development by means of programs, politics, projects and hardware to promote the culture of the biodiversity in the productive sector. (Minambiente, 2016)
5. To make use of the exhibitions (ECOexpo) that the MADS realizes in company of the Corporation Fund I Biotrade Colombia (CFBC) between others, being this an opportunity for the persons who want to tackle a biocommerce business, improving the potential that it is possible to exploit on the national and international markets(MADS, 2015)
6. To make use of the different agreements of free trade as the obtained ones with the United States where the tariff barriers reduction is for the revenue of the Colombian products (Guarin, 2003)

#### **2.4.4. YOU THREATEN**

1. It presents to itself like a threat the extreme climates for which the country has happened in the last years, which have been marked by strong droughts or torrential raining seasons. Since it has been indicated by analysts of the topic of the climate change "The changes in the climate also affect the productivity of the animal and vegetable species, since they alter the winter cycles -

summer that they are essential for the survival of the flora and the fauna. The birds and the fish are modified the signs that motivate its migratory processes and the plants "make a mistake" in its germination." (Atehortúa, 2010)

2. The devaluation of the Colombian weight in the last year has increased, in the year 1995, to buy a dollar \$ 1000 were needed, now in the year 2016 appropriately 3.200 pesos are needed, the Colombian weight lost value as regards the American dollar, that is to say, it was devaluated, by what there is needed a major quantity of the local currency to buy a unit of the foreign currency. That's why there increased the costs of the agricultural inputs (fertilizers, pesticides). (Subgerencia Cultural del Banco de la República, 2015)
3. The national laws on the conservation and commercialization of native species of flora it is very strict, at present the orchids compilation for example is prohibited since many of them are in extinction route sometimes confused, what generates that the flowers producers avoid these species take to national and international markets.

## 2.5. Analysis of the Information: Strategies proposal for the biocommerce of flowers and foliages

To realize the crossing of information of the external and internal environment the following counterfoil is applied:

INTERNAL ENVIRONMENT → EXTERNAL ENVIRONMENT ↓	FORTITUDE	WEAKNESSES
OPPORTUNITIES	STRATEGIES F-O	STRATEGIES D-O
THREATS	STRATEGIES F-A	STRATEGIES D-A

The strategies are formulated indicating what is going to be done, how it goes away to hace and why it is going to be done.

### STRATEGIES F-O

- To develop new varieties of native flowers using the genetic engineering to make use of the markets not explored on a global scale. Making use of the existence of Universities and research centers specializing in agricultural topics, like the National University of Colombia and the University of Antioquia
- To make use of the exhibitions as ECOexpo realized by the Department of Ambience and Sustainable development, to strengthen the biocommerce and to promote the growth of the kidlings and medium enterprises, generating direct work places that provide stability.
- To advise and to qualify in foreign trade the small and medium-sized producers of flowers and native foliages, so that they develop exporting capacities, by means of agreements Universidad-Empresa-Estado, with the Universities that

have programs of International Business (University of Medellin, ESUMER, EAFIT).

#### STRATEGIES D-O:

- To use as hardware the agreements of free trade that Colombia has signed to develop a few much easier routes of transport where the required papers are less, for the transport of flowers and foliages, leaving aside the high papers that they demand to be able to transport them; being based on the benefits that the TLC bring with it.
- To make use of the resources of the genetic engineering that is in constant investigation and this way to be able to generate flowers with a much more lasting life cycle, offering to him this way to the clients a major appreciation in addition to generating a major attraction for its duration.
- From few investigation that is seen in the biocommerce of flowers and native foliages it is possible to generate a more exhaustive exploration, exploiting the potential that has this market due to its diversity of flowers that you know that they exist in our country, making it showier.
- To strengthen the institutional control to prepare and to punish the illicit contraband of wild flowers, promoting this way the legal market of the exporters formally constituted.

#### STRATEGIES F-A:

- Making use of the variety of species that adapt themselves to different climate changes or that belong to extreme climates of which they take advantage to

survive, there can face the sudden climate changes that affect the productivity of the flowers, including the wild flowers.

- The sector flower-grower of Colombia is provided with an endless number of species that adapt themselves to different climate changes
- The Colombian State, in asocio with the Universities and the exporters, they should check and fit the existing regulation for the exportation of flowers and native foliages, in order to improve the legal processes for the exportation and to promote this way this market.
- To make use of the current devaluation of the Colombian weight, to strengthen the exporting offer of flowers and native foliages, since they become more competitive on the international market.

## **2.6. Finds**

- The biocommerce of flowers and foliages is a market still for developing, nevertheless it has a big potentiality on a global scale.
- Corantioquia has given an important support to the sector flower-grower, especially at the moment of advising on the current regulations and the requisites to commercialize plants.
- The gathered experiences show that the main difficulties of the sector are for the politics and regulations that it has established for the plants commercialization.

## **2.7. Conclusions and recommendations**

### **2.7.1. Conclusions**

- There was recognized the national and international market of flowers and native foliages, identifying the main countries to which it is exported (the United States, European Union, Canada) and the roll of Colombia like an important actor on these markets.
- There was carried out an analysis and diagnosis of the market of flowers and native foliages from Antioch towards the rest of the world, finding the potentiality that the region has so that this is a more important actor on the market.
- There were formulated strategies that allow to promote the biocommerce of flowers and foliages being the most excellent the cooperation university - company - the state so that this market keeps on growing.

## **2.7.2. Recommendations**

- We recommend the state to design a public politics of promotion of the biocommerce in Antioch.
- We recommend the banks to give money to persons who want to invest in sustainable business, related to the biocommerce.
- The State must provide the producers and comercializadores of flowers and native foliages, accompaniment, trainings, subsidies, which generate motivation to continue with this one business.
- It is recommended to him to the university Esumer to give him a major force to the program that he has handling of Agribusiness, where they motivate the students to generate major investigations on the topic.

### 3. Bibliography

- Andi. (1 de Abril de 2015). *Colombia: Balance 2015 y Perspectivas 2016*. Recuperado el 2016, de <http://www.andi.com.co/Documents/Balance2015/ANDI%20-%20Balance%202015%20y%20Perspectivas%202016F.compressed.pdf>
- Asocolflores. (2015). *Boletín Estadístico*. Recuperado el 23 de Marzo de 2016, de [http://asocolflores.org/aym\\_images/files/CENTRO\\_DE\\_DOCUMENTACION/ECONOMIA%20Y%20LOGISTICA/BOLETINES%20ESTADISTICOS/Boletin%20Estadistico%202014%20Asocolflores.pdf](http://asocolflores.org/aym_images/files/CENTRO_DE_DOCUMENTACION/ECONOMIA%20Y%20LOGISTICA/BOLETINES%20ESTADISTICOS/Boletin%20Estadistico%202014%20Asocolflores.pdf)
- Atehortúa, F. (2010). Calentamiento global: sus orígenes, la relación con la actividad humana y sus repercusiones generales para Colombia. *Revista Mercatec*(47), 64-73.
- Benítez, A. (2005). *Avances recientes en biotecnología vegetal e ingeniería genética de plantas*. REVERTE, S.A.
- Biocomercio Andino. (2013). *Biocomercio Andino*. Obtenido de <http://biocomercioandino.org/#sthash.rxJzLf0H.dpbs>
- BIOCOMERCIO ANDINO. (2013). *DIMENSIONAMIENTO DE LA DEMANDA DE FLORES Y FOLLAJES TROPICALES EN EL MERCADO NACIONAL Y EXPLORACIÓN DE NUEVOS CANALES DE COMERCIALIZACIÓN EN COLOMBIA*. BOGOTÁ.
- Biocomercio Colombia. (2013). *Biocomercio Colombia*. Recuperado el 23 de Marzo de 2016, de <http://www.biocomerciocolombia.com/proyectos/2013-10-13-07-19-09/proyecto-apc>
- Biocomercio Colombia. (2014). *¿Que es biocomercio?* Recuperado el 21 de Marzo de 2016, de <http://www.biocomerciocolombia.com/>
- BIOTRADE initiative. (2006). *Diagnóstico de la cadena productiva de heliconias y follajes en los departamentos del eje Cafetero y Valle del Cauca*. Obtenido de [http://www.biotrade.org/ResourcesNewsAssess/Sector\\_assessment\\_heliconias\\_Feb06.pdf](http://www.biotrade.org/ResourcesNewsAssess/Sector_assessment_heliconias_Feb06.pdf)
- Cámara de Comercio de Bogotá. (2015). *Manual de flores & follajes*. Bogotá. Obtenido de <file:///C:/Users/David%20Perez/Downloads/Manual%20exportación%20Flores%20y%20%20Follajes%202015.pdf>
- CORANTIOQUIA. (2005). *Seminario de biocomercio*. Cartagena. Recuperado el 14 de marzo de 2016
- Díaz, J. A. (Enero de 2006). *.biotrade.org*. Obtenido de Diagnóstico de la cadena productiva de heliconias: [http://www.biotrade.org/ResourcesNewsAssess/Sector\\_assessment\\_heliconias\\_Feb06.pdf](http://www.biotrade.org/ResourcesNewsAssess/Sector_assessment_heliconias_Feb06.pdf)
- Dirección de Impuestos y Aduana Nacional DIAN. (1 de Enero de 2007). *DIAN*. Recuperado el 26 de Marzo de 2016, de Consulta por estructura arancelaria: <https://muisca.dian.gov.co/WebArancel/DefConsultaEstructuraArancelaria.faces>



- FLORES ORGASMICAS. (2010). *FLORES ORGASMICAS*. Obtenido de [http://floresorgasmic.com/index.php?option=com\\_content&view=article&id=51&Itemid=41](http://floresorgasmic.com/index.php?option=com_content&view=article&id=51&Itemid=41)
- Guarin, R. (2003). *Univeridad Militar Nueva Granada*. Obtenido de <http://repository.unimilitar.edu.co/bitstream/10654/11909/1/IMPACTO%20DEL%20R%C3%89GIMEN%20CAMBIARIO%20ACTUAL%20EN%20LA%20ECONOM%C3%8DA%20DEL%20SECTOR%20FLORICULTOR%20COLOMBIANO.pdf>
- INFOJARDIN. (2015). *INFOJARDIN*. Obtenido de <http://articulos.infojardin.com/orquideas/cultivo-orquideas-temperatura-humedad.htm>
- Instituto Colombiano Agropecuario. (s.f.). *Instituto Colombiano Agropecuario*. Obtenido de Protocolos Fitosanitarios: <http://www.ica.gov.co/Importacion-y-Exportacion/Protocolos-Fitosanitarios.aspx>
- Instituto para la Calidad PUCP. (25 de Julio de 2012). *El Instituto para la Calidad*. Obtenido de <http://calidad.pucp.edu.pe/el-asesor/sistemas-integrados-de-gestion-una-clara-definicion#sthash.fFoMgyTj.dpbs>
- La República. (21 de MARZO de 2012). *LA REPÚBLICA*. Recuperado el 27 de MARZO de 2016, de <http://www.larepublica.co/agronegocios/cultivo-de-orqu%C3%ADdeas-el-pasatiempo-que-se-convirti%C3%B3-en-un-negocio-cada-vez-m%C3%A1s-rentable>
- MADS. (2015). *Portafolio de bienes y servicios de negocios verdes*. Obtenido de <https://www.minambiente.gov.co/images/NegociosVerdesysostenible/portafolio/html5forpc.html>
- Magnum Logistics. (s.f.). *Exportacion de flores via maritima*. Obtenido de <http://www.magnumlogistics.com.co/index.php/casos-de-exito/item/40-exportacion-de-flores-via-maritima>
- MERCADO. (11 de FEBRERO de 2015). 500 millones de flores exportar Colombia por San Valentín. *MERCADO*.
- MINAGRICULTURA. (3 de Febrero de 2015). *Esperamos exportar 500 millones de flores a Estados Unidos: MinAgricultura*. Recuperado el 14 de Marzo de 2016, de <https://www.minagricultura.gov.co/noticias/Paginas/Esperamos-exportar-500-millones-de-flores-.aspx>
- Minagricultura. (28 de Octubre de 2015). *Minagricultura*. Recuperado el 8 de Abril de 2016, de <https://www.minagricultura.gov.co/noticias/Paginas/Colombia-se-expande-a-nuevos-mercados-flores.aspx>
- Minambiente. (2010). *Ministerio De Ambiente y Desarrollo Sostenible*. Obtenido de <https://www.minambiente.gov.co/index.php/component/content/article/1396-plantilla-negocios-verdes-y-sostenibles-47>
- Minambiente. (2016). *Ministerio de ambiente y desarrollo sostenible*. Obtenido de <https://www.minambiente.gov.co/index.php/component/content/article/1381-plantilla-negocios-verdes-y-sostenibles-38>
- MINAMBIENTE; UNAL. (2015). *PLAN ORQUIDEAS*. Recuperado el 28 de MARZO de 2016, de [https://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemas/pdf/Programas-para-la-gestion-de-fauna-y-flora/PLAN\\_ORQUIDEAS\\_2015.pdf](https://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemas/pdf/Programas-para-la-gestion-de-fauna-y-flora/PLAN_ORQUIDEAS_2015.pdf)

- minsalud. (Octubre de 2013). *minsalud*. Obtenido de Sistema de Medidas Sanitarias y Fitosanitarias - MSF : <https://www.minsalud.gov.co/salud/Documents/general-temp-jd/SISTEMA%20DE%20MEDIDAS%20SANITARIAS%20Y%20FITOSANITARIAS%20-%20MSF.pdf>
- Núcleo Ambiental S.A.S; Cámara de Comercio de Bogotá. (2015). *Manual Flores & Follajes*. (C. d. Bogotá, Ed.) Recuperado el 10 de Abril de 2016
- ODEPA. (Mayo de 2014). *Caracterización del mercado de las flores*. Recuperado el 23 de Marzo de 2016, de [http://www.odepa.cl/wp-content/files\\_mf/1400271905Floresdecorte201404.pdf](http://www.odepa.cl/wp-content/files_mf/1400271905Floresdecorte201404.pdf)
- Ortega, S. (2007). *Biocomercio sostenible : biodiversidad y desarrollo en Colombia*. (I. A. Humboldt, Ed.) Bogota, Colombia: IM editores.
- Ortiz, A. M. (2015). *Universidad Militar Nueva Granada*. Recuperado el 18 de Abril de 2016, de Repositorio Institucional UMNG: <http://repository.unimilitar.edu.co/bitstream/10654/13744/2/FI%C3%B3rezAnaMaria2015.pdf>
- Portafolio. (19 de Julio de 2015). Obtenido de <http://www.portafolio.co/economia/finanzas/oportunidades-dolar-caro-chocan-mercado-41322>
- PROCOLOMBIA. (Noviembre de 2015). *análisis de exportaciones Colombianas enero-octubre 2015*. Recuperado el 23 de marzo de 2016, de [file:///C:/Users/David%20Perez/Downloads/2015.11.06\\_analisis\\_de\\_exportaciones\\_colombianas\\_ene-octubre\\_2014-2015%20\(2\).pdf](file:///C:/Users/David%20Perez/Downloads/2015.11.06_analisis_de_exportaciones_colombianas_ene-octubre_2014-2015%20(2).pdf)
- PROCOLOMBIA. (2015). *ESTADÍSTICAS DE LAS EXPORTACIONES COLOMBIANAS*. Sociedad Colombiana de Orquideología. (2016). *Sociedad Colombiana de Orquideología*. Obtenido de <http://www.sco.org.co/pagina/sco-vision-y-mision/71>
- Subgerencia Cultural del Banco de la República. (2015). *Biblioteca Virtual Luis Angel Arango*. Obtenido de Devaluación: <http://www.banrepcultural.org/blaavirtual/ayudadetareas/economia/devaluacion>
- Villegas, F. (20 de Febrero de 2016). Flores y Follajes Nativos de Antioquia. (M. C. Franco, D. Perez, & R. Taborda, Entrevistadores) Copacabana, Colombia.

## 4. ANNEXES

### ***A. Annexes: He interviews mister Francisco Villegas, Manager and Owners of Orquifollajes S.A.S.***

**María Franco (MF), Richard Taborda (RT), David Pérez (DP):** ¿ Does the Biocommerce in Colombia have future?

**Francisco Villegas (FV):** No. Every day is worse, the contraband is doing the business. Also the legal processes for the creation of company based on the Biocommerce are very bothersome, it is necessary to begin from 0, legally sedate to extract the RUT, to register before the DIAN, posteríos to that it is necessary to extract the chamber of commerce, having that it must begin the management with the municipality where the business will be located, to know if it is possible or not to sow the place where the company will be located, that happens because in many cases in the place where you go to sow is protected or it has some project raised for future years, this permission of planeación. Additional to that it is necessary to do part of Corantioquia and to continue ICA requisites, there are so many things for doing that it is necessary to hire personnel for this type of processes. Whenever the time happens the legal norms are more extensive and difficult to continue. It is not worth while so many costs and lost time, there are so many problems that this type of business is not feasible. For all this the contraband for many is the best option, less processes and less expenses.

**MF, RT y DP:** To what countries do they export?

**FV:** At present only an exportation is done a year to the United States for or said previously the procedures are great, but earlier we go so far as to travel and take

flowers to the United States, Europe, Germany specially since this was the port where better they were distributed, in addition to Japan, Australia and Brazil.

**MF, RT, DP:** Does this type of business have many competitors?

**FV:** No, first if you were asking this question to me one year ago suddenly some plants were coming here because it was not possible to plant for the absence of stations, in this moment the same more regulations of ICA and the high value of the dollar do that to import flowers is not the most feasible thing, also there is great offer of national product.

**MF, RT, DP:** The free trade agreement with the United States benefits the sector flower-grower of Colombia or did it turn out to be affected?

**FV:** For this sector it was better and benefits the free trade agreement with the United States, because one created facility for importa fundamental raw material for agricultural production of the country we can bring in machinery, inputs that do not take place in the country. Definitely the costs diminished for this agreement and on having had less costs, we are more competitive

**MF, RT, DP:** Quantity of exported flowers?

**FV:** The flowers offices for exportation were never in large numbers, the biocommerce of natural Orchids is a relatively poor market because this type of plants is for collectors, guys as I that they love the Orchids. The minimal order for me is to 500 USD

**MF, RT y DP:** Why does he believe that the national Government has put all this type of regulations and procedures?

**FV:** The Government names persons so that they coordinate a certain area, it is these persons who see the need to be changing what is already established to demonstrate changes and results and you leave its mark during its trajectory in this charge.

***B. Annexes. He interviews the Veterinary Doctor and Technologist in Rural development, Camilo Atehortúa, expert in topic of biocommerce.***

**María Franco (MF), Richard Taborda (RT), David Pérez (DP):** What is the support or contribution that offers Antioch to the Biocommerce?

**Camilo Atehortúa (CA):** Everything centers on the regional corporations, as CORANTIOQUIA, CORNARE, CORPOURABÁ

Important is the protection of the species like birds and forest where they qualify for its vulnerability in protected species and put themselves in the red book.

To do the control in reserves and some sectors, especially in festivities (Holy week, holidays) control in highways, to avoid the business and transport of flora and wild fauna; this handling is done across the environmental police, but it is relatively of regulating villain

In the regions of the east in the reservoirs, there have been realized inventories of flora, fauna, animal species and reptiles, the books exist in the Internet, this would be an EDUCATION, but very little leaks out,

**(MF), (RT), (DP):** What so much moves the Biocommerce of flowers and native foliages in Antioch?

**(CA):** Between these markets the one that more moves it is Anturios, with formal and informal markets the majority at level of farms, squares of market and street map, the same happens with Orchids.

**(MF), (RT), (DP):** What are the main problems or impediments so that this business goes out forward?

**(CA):** The market of native flora, it is complicated by the rigorousness and sometimes unnecessary steps to do exportation inclusive he was saying in biological brokers, between countries like Panama that are countries joined by the same forest, to do commerce of flora, because they bring in the restrictions of the ICA and of the secretariats of agriculture of other countries where Colombia could do regular market and sanitarily well.

The Heliconias or exotic flowers, they do not have very pronounced restrictions if they register before the ICA and raise for the consultancy of a professional of the agronomy, which in some cases they are missing to the professional ethics and give the certificates without going to the cultivation, a distinguishing code still has not happened to the Heliconias or plants of the order of the Zingiberáceas today are exported by the same code as the traditional flowers (roses, pompoms between others)

**(MF), (RT), (DP):** ¿ What is the current state of the business of Biocommerce of flowers and native foliages of Antioquia?

**(CA):** Today we are still lacking in production to be able to supply the market in epochs we were saying peak (days of mothers, woman and love and friendship) that are the epochs of major demand, in average a florist's shop in normal epoch consumes 4 weekly dozens of exotic the same is much demanded the market of the foliages that has in average 7 sheets as a flower

The corporations do not give support in investigation in this one sector as it was done previously, the projects enter and die in the drawers of the institutions

In conclusion in small Heliconias or nothing in this moment.