

COLOMBIAN FLORICULTURE:

**A case of competitive entrepreneurship, with
social and environmental responsibility, in a
country under difficult and changing conditions.**

**Article prepared for The Ellison Chair for International
Floriculture, No. 2 of the distinguished lecture series, Texas A.
& M. University, College Station, Texas.**

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Bogotá, Colombia, March 2007

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A case of competitive entrepreneurship, with social and environmental responsibility, in a country under difficult and changing conditions.¹

**Ernesto Vélez
Chairman, Board of Directors, ASOCOLFLORES²**

A. International Fresh Cut Flower Market Overview

The total value of ornamental floral products traded in the world markets is around \$8.5 billion of which \$5 billion is represented by cut flowers and fillers and \$3.5 by plants and propagation cuttings.³

World cut flower exports are highly concentrated in four countries: Holland, Colombia, Ecuador and Kenya representing 83 %. Imports are likewise, concentrated albeit to a lesser extent, 73% going into five countries: Germany, United Kingdom, United States, Holland and France. The 2002 to 2005 trend shows an increased concentration in the percentage of exports and decrease in imports.⁴

A worrisome situation (which should also be viewed as an opportunity⁵) from the stand point of exporters is the low per capita consumption in the USA.⁶ When this is coupled with increase in supply⁷ and a growing market share of supermarkets, nowadays around 50% (against 20% twelve years ago) this trend can be devastating. It imposes higher quality, environmental and social

¹ Article prepared for The Ellison Chair for International Floriculture, No. 2 of the distinguished lecture series, Texas A. & M. University, College Station, Texas. The views expressed are responsibility of the author and do not necessarily represent those of the institution he represents. This paper is based on the presentation made at this forum on October 11, 2006 and on the extension and translation of another article in Spanish, by the author, published in the proceedings of the symposium of the Colombian Society of Horticultural Science, entitled: *La Floricultura Colombiana Ejemplo de Empresarismo Exportador con Responsabilidad Socio-ambiental*, Bogotá, October 2006.

² Spanish for: *Asociación Colombiana de Exportadores de Flores*, in English: Colombian Association of Flower Exporters.

³ Source: UNCTAD, at FOB port of export 2005 prices.

⁴ Source: GTA-Global Trade Atlas. The 2002-05 tendency has been of a concentration increase in exports from 80% in 2002 and a decrease in import concentration from 85%.

⁵ Supply is fickle, uncontrollable and unmanageable, demand is otherwise.....it can be induce and promoted, it can be generated.

⁶ Source: AIPH- International Association of Horticultural Production 2005 Yearbook, which reports an annual consumption of €26 per person in USA versus Europe averaging around € 45, with some countries in the €60-90 level.

⁷ Flower prices are extremely sensitive to supply, price elastic in economics jargon, meaning that a given percentage increase in supply can cause a more than proportional decline in price. Conversely, it is demand-price inelastic because a decrease in price does not bring forth a greater demand of the product.

standards while paying lower prices to producers and reducing their profit margins.⁸ How far can this pressure be endured by the floral chain?

B. The Colombian Flower Export Business

About three decades ago, within a short period of time, Colombia became the first exporter of flowers to the United States and the second worldwide. Today flowers represent the second agricultural export product after its traditional well known coffee.

Nearly six out of ten flowers sold in the United States are produced in Colombia. Some flower types such as carnation, chrysanthemum and alstroemeria represent more over 90 %, an unusually high market share for an import item from a developing country by the largest market in the world. Roses, the “queen of flowers,” has more worldwide producers and exporters, and Colombia’s volume share in the US market is still around 70%.

The rapid and successful production and international market development was possible thanks to a combination of factors: well used natural comparative advantages⁹ and other man-made advantages built by a few Colombian visionaries and subsequently followed by many others .

It is relevant to cite Mr. Alvaro Uribe, President of Colombia, when he said, in November 2003, during the celebration of the 30th anniversary of Asocolflores:

”The history of floriculture in Colombia and its trade organization, ASOCOLFLORES, is a story of business intelligence, of the recognition of the country’s natural conditions and its competitive advantages. It is also the history of how starting from a grass roots level the practical application of science and technology was put to successful productive purposes by entrepreneurs and how it was possible to develop an accelerated training process for women to become part of the workforce.”

Farm numbers and size

Colombia (early 2007) has about 8,000 hectares (20,000 acres) growing flowers of which some 7000 are intensively cultivated under greenhouses and 1000 outdoor rain fed, mostly foliage and filler ornamentals. Farms are located

⁸ Source: SAF- Society of American Florists estimated the 2002-05 increase volume of flower imports into US at 24% while the value increase of only 3%. This tendency is also confirmed in the world market with a volume increase of 30% compared to 8% in value, as reported for the same period in the COMTRADE data base.

⁹ Advantages such as evenly cool year round temperatures (+- 14 °C), constant twelve hour photoperiods, adequate fertile flat land, irrigation water and availability of quality labor around adequate land and air transportation infrastructure and all this added to proximity to the North American market, ideal for carnation production and exports, were identified by David Cheever in his mid 60’s term paper for a Colorado State University graduate course called the “Economics of Location”. By serendipity this study’s conclusions fell into the hands of visionary and risk taking Colombian and American entrepreneurs who engaged Cheever’s advice and technical assistance to develop an export market oriented agro industry, with high technological standards, which led to where Colombian floriculture stands today.

around two main clusters, the Bogota plateau with 79 % of the area and the Rionegro valley of Antioquia, near Medellin, with 18 %, and the remaining 3% in other areas of the country¹⁰.

In terms of farm sizes this area is fragmented. The “small” ones with less than 50 acres plus the “medium” sized, 50 to 125 acres,¹¹ account for 50% of the exports. The other 50 % is exported by very large farms operating over 125 acres under greenhouses.

Three major flower types: roses, carnations (standard and spray) and chrysanthemums (mums and poms) cover three quarters of the area. Each of these floral species has numerous varieties, some in the hundreds. The rest are known as specialty cut flowers and fillers mostly used as companions in bouquets where the major three, mentioned above, are the “focus” flowers.¹²

Flower Export Trends

Since commercial floriculture started in Colombia some 40 years ago exports have grown continuously, both in volume and value, fluctuating annually between 6 and 10%. Some slackening of growth has taken place following years of persistent appreciation of the Colombian currency with respect to the dollar, such as it happened during the 1993-97 period. It is likely that the same trend may be repeated during 2007-2008, as a result of a similar peso appreciation process that has taken place during the preceding three year period, 2004-2006.

In 2006 total flower FOB port of export farm value was slightly over US\$ 930 million, of which 80% was sold to USA, about 12 % to European countries and the remaining 8% to Asian and other South American countries.

Employment

¹⁰ This area though significant in terms of productivity and economic contribution is not much in geographical or environmental terms because the Bogotá plateau has a total of some 200,000 hectares of flat arable land and another equal area of foothills and forest reserves. In Antioquia, although not as extensive, the area cultivated in flowers is also very small compared to the total arable land.

¹¹ The terms “small” and “medium” size may be misleading by conventional agricultural standards due to the high capital, technological and labor requirements in floriculture when compare with most other crops. Investments ranging from US\$ 200,000 to \$ 300,000 per hectare and 12 to 20 permanent workers employed per hectare are common parameters in Colombian floriculture.

¹² In approximate order of importance: Gypsophila, Asters, Limonium, Alstroemeria, Gerberas, Liatris, Eryngium among others. Liliium, Freesias, Callas, Anthurium, Hippeastrum, Ornithogalum and other corm and bulb flowers, considered focus flowers, are also grown and gradually expanding in Colombia.

Floriculture in Colombia generates 110,000 direct and well paid¹³ jobs, with fringe benefits over and above legal requirements and about 65 % are filled by women, mostly heads of family in rural areas, who have few other alternative sources of remunerated stable work. Additionally, 94,000 indirect jobs are held by people employed in the various allied industries and suppliers of inputs and services of the floral business chain. All together families whose work and income are sourced from floriculture total around 200,000 representing nearly a million people whose improvement of living conditions is highly dependent on the floral industry as a whole.¹⁴ This source of rural work has very significant impact in terms of social welfare, stability and security around the many townships surrounding two of the largest Colombian cities, Bogota and Medellin.

C. The “ Colombian- American Flower Connection”

Colombian floriculture has forged a great partnership or “*Alliance for Progress*”¹⁵ in the floricultural industry between the two countries, a real joint venture. Both sides end up winning, in terms of economic, commercial and social impacts, the latter being especially relevant to Colombia, a developing country with high levels of insecurity, unemployment and poverty.

Following are some key indicators of this successful relationship:

1. Imported flowers by the United States from Colombia in 2006 amounted to US\$ 740 million (80%), out of the total value of US\$ 930 million sold by Colombia worldwide. That amount is multiplied tenfold by the time it reaches the American end consumer. Therefore, it becomes around US\$ 7 billion of added value distributed along the floral chain, including many US based importers, brokers, truckers, wholesalers, florist retailers and mass marketers (supermarkets), represented in marketing cost mark-ups and profit margins to the various market channels.
2. Nearly 20% of the flower export businesses in Colombia have been owned by US citizens, over the past ten years.¹⁶

¹³ Sample surveys conducted by Asocolflores fluctuating annually on 60 to 90 representative farms of different zones, sizes and flower crops grown, to determine and benchmark labor contracting practices and pay scales, have consistently shown salary levels averaging about 15% above the minimum legal wage. Compared to other agricultural sectors of the country floricultural wage levels are higher, because of its formality and rigor in contracting procedures, often absent in many other rural areas of the country, as well as in training requirements, seniority due to low turnover in many farms, and also resulting from union and collective bargaining negotiations (“*pactos colectivos*”), which combined include nearly 40% of the flower farms labor force.

¹⁴ A greater number of jobs are created in the USA on account of Colombian flower imports and distribution, an estimated total of 225,000 Americans employed.

¹⁵ It is an entrepreneurial case reminiscent of the USA/Latin American” *Alliance for Progress*,” government to government partnerships, initiated in the early 1960’s by President John F. Kennedy.

¹⁶ This American share has recently diminished as a result of DOLE Fresh Flowers Company, downsizing operations in Colombia (as well as in Ecuador).

3. Some 150 flower importer distributor companies have been founded, mostly located in the Miami area, owned and operated by Colombian and/or American citizens.
4. At three major international airports, Miami, Bogota, and Rionegro flowers are by far the single most important cargo item. In the last two they represent about 80 % of the volume. Flowers have turned the Bogota airport into Latin America's foremost air cargo handler (some 200,000 tons of annual airfreight) and, likewise, Miami's single most important cargo item.
5. Colombian flower international trade also generates nearly US\$ 200 million per year in freight costs paid to US and Colombian airlines.
6. Flowers carried by eight airlines, flying mainly to United States, represent their major cargo business. During peak seasons 30 to 35 fully loaded flights per day take off from Colombia, most landing in Miami and, a small but growing number, in New York, Los Angeles and Houston¹⁷.
7. About 30 American companies operating hundreds of trucks haul flowers daily from the above mentioned airports to hundreds of cities over most of the United States.
8. Over 25,000 traditional florist retailers, selling flower arrangements to final consumers and nearly 1,000 wholesalers supplying them receive on average 60% of their product from Colombian farms. The "big boxes", supermarkets chains, such as Wal-Mart, Kroger, Safeway, Wholefoods, Albertson's, Costco, which have an overall flower market share of about 50%, are also sourced by Colombian farms on a similar high average (of nearly 60%).
9. Diverse industries provide inputs and services to the floral chain in the USA, as well as in Colombia, many supplied with raw materials and finished products imported from United States. Their business is highly dependent on Colombian floriculture, for example the manufactures an distributors of polyethylene for greenhouses, carton packing boxes, fertilizers and pesticides, airline carriers, etc.
10. Several alliances between US and Colombian floral industry associations have developed over the years to achieve common goals. A prime concern has been the improvement of marketing channels and practices and the increase of flower per-capita consumption, which is still low in the United States as compared to other countries, especially European; yet it has a great growth potential. Toward this end, joint efforts are underway to get more Americans to buy more flowers more often. This is, among others, one of the reasons why ASOCOLFLORES has several of its representatives as board and /or committee members

¹⁷ Other American cities airports, including Atlanta, Pittsburgh, and Toledo, have expressed interest and are exploring the possibility of servicing flower imports.

in organizations such as: SAF, WF&FSA, FPO, AFE, ICFG, FMFIC and CFC.¹⁸

11. Similarly Colombian and American floriculture joint work in science and technology has been significant. Asocolflores has contributed more than US\$ 1 million to support research and development through the AFE-American Floral Endowment Fund and the ICFG Hills Memorial Foundation. A total of 81 projects, funded by AFE, have been completed since 1999 and another 33 are underway, involving 18 American universities. During the last three years joint research projects of Colombian and American universities have been initiated with researchers and laboratory facilities from both countries, primarily in the areas of pest management, post harvest handling and quality control.¹⁹
12. The American government made a strong endorsement (over \$2 million), through USAID- United States Agency for International Development, to strengthen and expand two of ASOCOLFLORES leading social responsibility and peace-seeking programs: *Cultivating Peace in the Family*, which teaches flower farm workers, as well as their families and communities, to manage conflicts in a rational non-violent way; and the *School of Floriculture*, aimed at training people displaced by terrorist and drug related violence, in the principles and practices of floriculture. This program improves their possibilities of finding jobs in the horticultural production sectors. Both of these efforts address, a common Colombo-American interconnected problem: violence, drugs, and terrorism.
13. During the last eighteen years Asocolflores has been constantly informing the American government, including its congressional and executive offices in Washington, of the Colombian flower export business practices and its social and environmental programs, in order to develop and maintain its access to the American market. During that period over 300 members Congress, their staffers and government officers have been visited by Asocolflores executives and board of director's members, in a structured lobbying process, assisted by Washington based legal advisors. In this course of action both sides have analyzed and come to agreements on the management of several challenges and opportunities of this beneficial business connection between the two countries, as evidenced by the impacts described above.

¹⁸ Society of American Florists, Wholesale Florists and Florist Suppliers Association, Flower Promotion Organization, American Floral Endowment, International Cut Flower Growers Association, Floral Marketing Funding Initiative Coalition, and the Miami based Colombia Flower Council.

¹⁹ Participating American universities include the University of Florida, University of California, Texas A&M University and the two Colombian, Universidad Nueva Granada and Universidad Jorge Tadeo Lozano.

14. Last but not least have been the incessant cooperative and successful efforts over nearly forty years from both sides, from Colombian exporters and American importers, Colombian and American government authorities, in keeping out of our trade other mutual problems, those related to illegal drugs and biological pests.

D. ASOCOLFLORES, a proactive flower trade organization

The Colombian Association of Flower Exporters - ASOCOLFLORES represents about 75% of the country's fresh cut flower exports. It has 214 member companies, the majority (also 75%) located in the Bogota surroundings and the rest primarily in the Rionegro area of Antioquia²⁰.

Asocolflores was established in 1973 as a trade association to promote flower exports, defend and maintain access to international markets and to develop Colombian floriculture through research, technological improvement, and training of workers, air transportation logistics, and the organization of trade fairs, environmental management, social development and labor welfare programs. It does not market flowers or sell production inputs. These are commercial concerns left to individual member companies²¹. It develops policies and programs and assists grower members in their implementation. It is a promotional, advisory and representational entity in the many national and international areas in which private businesses, regardless of how large or important they are, cannot individually act as effectively or legitimately as a formal and representative institution.

To reach its objectives the Asocolflores carries out the following programs²²:

1. SOCIAL DEVELOPMENT includes:

- a. *Cultivating Peace in the Family*
 - b. *School of Floriculture*
 - c. *Flowers are Home*
 - d. Child care centers
 - e. School reinforcement
 - f. Continued education
-
- *Cultivating Peace in the Family*: a professionally structured effort devised in 1999 to teach flower workers and families to solve conflicts

²⁰ In total Colombian floriculture comprises some 700 farms with 7,000 hectares (17,500 acres) under greenhouses, owned by about 300 companies of which 214 were Asocolflores members, as of late 2006.

²¹ Asocolflores has been conscious and respectful in drawing the line between common and individual interest. Fostering united endeavors in defined areas is Asocolflores mandate while letting forceful competition in others take place, among member firms, has been one of the healthy driving forces of the Colombian flower industry.

²² Details on these and other activities are available in the Asocolflores Bimonthly News Bulletin and Bi-annual magazine, Revista de Asocolflores, and in continuous updated English reports found in: www.colombianflowers.org and www.asocolflores.org in Spanish.

through non-violent methods²³. It has shown how the private sector should and can contribute to Colombia's peace-seeking efforts. The expansion and extension of the program was partially financed by the US government²⁴ since 2005, with the objective of doubling the number of beneficiaries participating at that time and reaching over 50,000 by the end of 2007. Since the beginning of this program, seven years ago, a course was designed by Asocolflores to train human resource farm managers as program workshop facilitators, and with the external USAID funding it has been periodically revised and improved. It includes workshops held in farms four times per year, to analyze cases of conflicts that have been experienced and are voluntarily shared for discussion by the participants, within a respectfully guided and easy going format. The teaching instruments and methodology consist of booklets and posters containing rules and practical examples of family and workplace cases of conflict scenarios managed with rational resolution alternatives. This user friendly program has been extremely successful. It improves workers and family communications and relationships and also workplace wellbeing. Asocolflores has been requested by other private and public organizations to help them replicate this innovative experience, by offering offer guidance, training of facilitators and general consultancy.

- ***School of floriculture*** was established in 2003 by Asocolflores, also with partial funding from with USAID, to enable people displaced by violence to find work. It provides training in cultivating, harvesting, grading and packing of flowers. It consists of a 9-month theoretical course and 3-month hands-on work practice at the farms, after which participants can be employed permanently. Nearly 2,500 people will have been trained by the end of 2006. This is another peace-seeking effort of Colombian floriculture.

- ***Flowers are home*** assists farm workers in obtaining housing loans or home improvement subsidies from government sources. It also "*Builds Communities*" by providing guidance in collective behavior. Some 20,000 houses will have been built by 2009.

- ***Other social development activities :***
 - Child care centers: Approximately 20,000 children are being looked after while parents work, including health and education services.

²³ This program was another offspring of an academic exercise adapted and put into practice in floriculture. That year Asocolflores organized a series of seminars to teach top management of its member companies the principles of negotiation, as developed by the Harvard School of Business, to improve their marketing skills. An Asocolflores grower member who attended them, and has psychology and family therapy training, started trying out these principles and skills on workers family conflicts at her flower farm. It worked out so well, with satisfaction of farm workers and managers, that subsequently an Asocolflores team was set up to develop and promote the procedure. As a result today tens of thousands of worker families and communities are applying it.

²⁴ This is USAID- United States Agency for International Development, donation of nearly US 1 million invested in printing of the various teaching materials, professional technical personnel salaries and their transportation vehicles.

- School reinforcement: 35,000 children benefit from oral health campaigns and 13,500 children ages 4-12 receive school kits to complement their education.
- Continued education: Supporting completion of elementary and secondary education, ongoing training programs on work-related areas and promoting and coordinating recreational, cultural and other educational activities with workers, families and communities.

2. **FLORVERDE** is a code of conduct and label initiated 10 years ago to promote and implement sustainable environmental and social responsibility in Colombian floriculture. It established a set of high and rigorous standards. This program has been adopted by 162 companies of which 76 are certified by an independent international auditing firm, SGS (Société General de Surveillance). Performance results at farm level are recorded and benchmarked in the following areas:

a. Environmental

- Rational use of soil, water and energy,
- Reduction of pesticide by IPM- integrated pest management and biological control,
- Composting vegetable matter and recycling plastics and other non biodegradable residues,
- Planting gardens, shrub hedges for landscaping and trees for windbreaks.

b. Social

- Improvement of labor management
- Occupational health and industrial safety

3. **CENIFLORES- Colombian Center for Innovation in Floriculture**

This unit was founded in 2004 by ASOCOLFLORES²⁵ on the basis of previous research and a survey of supply of and demand for floriculture technology available in Colombia. It is participatory in its structure because member growers define priorities and projects to be funded. It is “virtual” as it articulates and contracts existing research facilities in universities and research centers, without owning physical infrastructure or administering a large staff.

The number of past research projects co-financed by ASOCOLFLORES 1995-2002 were in the following areas of research:

²⁵ Ceniflores is a non- profit independent organization chartered according to Colombian law, whose members are the same of Asocolflores, with the capacity of obtaining national and international funds for research and education.

- Pest control & IPM.. 19
- Fertilization-soils... 2
- Post- harvest... 3
- TOTAL..... 24

Projects recently initiated by Ceniflores with Colombian research institutions and universities are:

- Entomological reference collections,
- Noctuidae, esp *Copitarsia* identification,
- Recirculating system for hydroponic roses and carnations,
- Micro-climate effects on downy mildew.

Additionally several US universities are co-funded by Asocolflores and Ceniflores (Texas, California, Florida, among others) through the American Flower Endowment – AFE and the International Cut Flower Growers’ Association – ICFG. The main research topics are in biological control, downy and powdery mildew disease management, ethylene control, soil salinity accumulation in rose production, effect of Calcium and Boron on petal blackening, and flower quality assurance with adequate post harvest care and handling practices.

4. PROFLORA

Since 1991 this event has been held every two years and has become the world's foremost CUT FLOWER trade fair. The 8th version, held in October 2005 at Cartagena, had 210 exhibitor stands and 5,000 attendees, of which 1,077 came from 39 countries.

The 9th version, again to take place in Cartagena, Oct 3-5 - 2007, will no doubt be bigger in size, attract a higher number of participants and will offer even better quality of services and products exhibited.

5. Participation of Asocolflores in committees and boards of directors of international floral industry organizations :

In USA:

1. SAF- Society of American Florists
2. WF&FSA - Wholesale Florist and Floral Suppliers Association
3. AFE - American Floral Endowment
4. FPO - Flower Promotion Organization
5. AFIF- Association of Flower Importers of Florida
6. ICFG- International Cut Flowers Growers Association
7. Joseph A. Hills Memorial Foundation, Inc.
8. Ellison International Floriculture Endowment

Other countries:

1. AIPH-International Association of Horticultural Producers
2. UF- Union Fleurs, (the association of flower importers of Europe)
3. BGI- Flower Importers Association of Germany
4. FITA- Flower Importers Association of UK

E. Snapshot of Floricultural Tendencies in Selected Countries Competing with Colombia²⁶

This is a brief overview of the situation and trends, based on personal interpretations²⁷ :

Ecuador

This country's floriculture bloomed and boomed in the early 90's while Colombia's receded²⁸, thereby gaining market share in USA and Europe. Thereafter Ecuador was hard hit in the early 2000's by the "dollarization" of its economy, and is presently recovering and doing better in producing roses and gypsophila. However, its government's recent pronouncements against negotiating the FTA- Free Trade Agreement with the United States may put in peril the country's exports thereby eventually diminishing Ecuador's competitiveness.

Mexico

Its market share in USA is still very low and has not increased in the recent past partly because it has a very big local market capable of absorbing large volumes at relatively high prices. The quality of its flowers is generally not up to international standards. Despite having an advantageous geographical

²⁶ Updated statistical state and trends of the industry on several countries included in this paper are found in the *Floriculture International* issue of November/December, 2006. More information by the author is in *La Floricultura en Ecuador Comparada con la Colombiana*, published in the *Revista Asocolflores*, May, 2000 and in *Informe de Actualizacion sobre la Floricultura en Ecuador y Colombia 2000-2002*; and the article *El Gigantesco Desarrollo de la Floricultura China*, by Ernesto Vélez, published in the *Revista Asocolflores Numero 57*, December 1999. Similarly the report presented by Daniel Vélez to the Asocolflores board of directors entitled *El Impresionante Crecimiento de la Floricultura en Kenia*, December 11, 2003, as a result of a survey made by a group of six Colombian flower growers visit to Kenya. Additional and more updated information on Colombian floriculture is found in the proceedings of the symposium organized by the Colombian Society of Horticultural Science, October 2006, entitled *La Floricultura Colombiana Ejemplo de Empresarismo Exportador con Responsabilidad Socio-ambiental*, by Ernesto Velez and Rebecca Lee.

²⁷ They do not reflect the thinking or endorsement of the organization the author represents.

²⁸ Caused mainly by the 1992-96 peso appreciation with respect to the dollar combined with pressure of international plant breeders seeking new customers, as Colombia was demanding less of their products at that time.

location its climatic conditions and production organization based on scattered smallholding family farms are not conducive to efficient production, high quality or customer servicing. For these reasons this country has not been able to develop its flower exports.

Brazil

This country is a newcomer with state funded promotion, mostly of tropical flowers. It is starting to grow roses, mums-poms primarily in the northeastern state of Ceará in the isolated desert island of Serra da Ibiapaba²⁹, with semi tropical humid climate, 300 km from Fortaleza, nearest ground of its international airport. Like Mexico it has a big local market with low quality flowers and packing standards. Brazilian government sponsored programs are usually resourceful, overly ambitious but not always efficient or successful.

Chile

This country read the signs and came up with a unique and interesting response of rational collective behavior. FUNDACHILE a private and very successful export promoter of salmon, fruits, wood and PROCHILE, a government agency with similar complementary objectives, both redirected their export promotional efforts after reviewing the Colombian experience in the production of roses, carnations, chrysanthemums and other flowers. They realized that Colombia has much better geographic location and climatic conditions and a great production and marketing head start. Therefore these institutions are now concentrating their thrust on developing the production of bulb flowers such as lilies, tulips, and peonies in the far south of the country where the climate is appropriate and where distance and cost of shipping to neighbor countries, Argentina and Brazil is far more favorable than trying to compete in the US or European countries.

Africa

A simplified but relatively accurate generalization would characterize flower production in most African countries as being highly subsidized and getting comparatively lower quality flowers than Colombia, produced under very low social and environmental standards. Supply from Kenya gains market share in Europe. Other countries with similar conditions and political problems, such as Ethiopia and Uganda are also trying to promote flower production for the European market.

Asia

Although China is the largest producer of flowers in the world it is not currently a significant player in the world market but can become so, especially in the long term and in the Far East markets. Its production potential is huge

²⁹ During the late 70's the author participated in a World Bank rural development project appraisal mission in that area. Knowing the climatic agricultural potential he can today conclude that it is excessively warm and humid to produce traditional high volume species such as roses, carnations or alstroemerias.

but so is its internal fast growing consumption, thanks to the country's outstanding and sustained economic development. Since China has geographical, climatic and logistic limitations that are difficult overcome in order to produce high quality flowers, it is possible that their low quality cheap products may eventually affect some international markets.³⁰

India to a lesser extent than China and with more unfavorable climatic and geographical conditions is also developing its floriculture, mostly to sell in the local markets and for exporting to neighboring Asian countries.

North Vietnam's socialist government is strongly promoting and subsidizing small holder's production in the high altitude lands of the Dalat region, which has good climate for growing roses, carnations and chrysanthemums. The intent is to ship flowers to France, where Vietnam has historical and commercial ties.

F. Final Remarks

Despite growing interest in cut flower production in many countries their exports to major world markets are yet small and limited, in most cases. Colombia has a leading edge and continues to be number one exporter in the world and by far number one supplier to the United States, with a constantly increasing market share.

The general trend is for the supply of flowers to keep increasing while consumption does not grow the same fast pace. Therefore, all segments in the floral business chain need to cooperate proactively in order to:

- Increase per capita consumption.
- Grow "the pie", instead of fighting over slices of a smaller pie.
- Join efforts to support larger consumption in the USA and other countries.
- Improve marketing systems and channels in established markets.

³⁰ The following statement addresses these issues from a lightly different and also valid viewpoint: " And don't discount China as an important threat in the near future. Some pundits believe that the growing middle class in China will consume most of the expanding production, and that the costs to ship over the Pacific are too high to be competitive, but remember that China's economy is based on exports and I believe they'll find a way to overcome the freight issue. Others say that the quality isn't high enough to serve the export market, but China can buy the expertise and technology (there are already many foreign companies providing technical assistance to China's flower industry) and the Chinese government has committed to helping to build the infrastructure necessary to make them an export powerhouse. China has more hectares in flower production than the rest of the world combined; their problem is extremely low productivity, but this, too, will be overcome in the near future" by O. Stanley Pohmer, State of the Industry Report, *Florist Review*, January 2007 issue (unedited draft article)

- Develop new markets.

If these actions are adequately implemented and the desired results achieved, Colombia will be able to continue expanding its exports and providing socially and environmentally sound solutions to the difficult conditions the country is going through.