## THE VETIVER DEVELOPMENT AFTER ICV4 IN VENEZUELA

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## INTRODUCTION.

#### **BRIEF HISTORY**

The development of vetiver in Venezuela is considered to have several stages. The first one is its introduction in Venezuela more than 100 years ago, in Apure State, at the south of the country. The Rural Welfare Council, a program of Ministry of Agriculture and Husbandry in 1954, conducted a small program of planting vetiver and handycrafts at Bejuma, Carabobo State. Then about thirty- six years ago, the Faculty of Agronomy of the "Universidad Central de Venezuela", through the action of teachers Jaime Henao Jaramillo, Napoleon Fernandez, Oscar Rodriguez and Aragua Conservation Society led by Professor Gerardo Yepez Tamayo, make activities and research to learn more about the behavior of the plant. Prof. G. Yepez Tamayo (2005) says that the work of planting in Venezuela starts with small businesses in 1996. The outreach of the aforementioned institutions motivated other institutions as well, including Polar Foundation. Through the implementation of Vetiver Project led by Dr. Oswaldo Luque M and with the close collaboration of the individuals mentioned above, this project started in 2001 and ended in 2006. The Fourth International Conference on vetiver, in 2006, held in Caracas, Venezuela, marks a new stage in the development of vetiver in the country, with the mass use of this plant, and with the proliferation of many companies today plant vetiver for erosion control. Since 2007 Caribbean Ceramics and its related companies started playing a key role in the development of rural communities in Venezuela.

## **COMMUNITY DEVELOPMENT IN VENEZUELA**

Since 2006 to the present day, there has been observed sustained development regarding the use of vetiver in several areas; Ceramics Caribbean and its related companies have played a key role, especially in supporting rural communities and those near to their areas of influence :

### 1. Yaracuy

a. Caribbean Ceramics Plant Chivacoa -Edo. Yaracuv: These activities are focused on the development of handicraft, also involving aspects of environmental protection in the grounds of the factory as well as neighboring areas to participate in conferences and vetiver and tree planting. Wastewater treatment in the homes of workshop participants were also performed. These activities were supported by state institutions such as the National Institute for Educational Cooperation (INCE), a year and a half ago they consolidated a place with the name of PROGRESS, which led to the institution ICSE ( Committee for Social Innovation Entrepreneurship ), with vetiver as the motivator for other activities as well, like: arts, painting, crafts, and other entrepreneurial training. It is estimated that a total of about 500 people were trained or directly involved in these activities. Some primary school teachers trained in the project have maintained their activities in their schools, through training programs for work. Noteworthy is the presence of a local television station and newspaper publications constant in the region on the activities of vetiver. The instructors are Marbella Rivas, Coordinator of Activities, Luzmila PEBES Velarde, and Ana Maria Benitez, creator and designer of the hen egg cup (handmade piece that has been a success).

**b** . Aereocloset C.A. Plant: a factory of the same group of shareholders also adopted vetiver handicraft social support program for communities in the area of action -San Felipe -Edo . Yaracuy . An important aspect of the program is that Master Instructor Ms. Magdalena Chirinos , was formed in the Caribbean Ceramics Vetiver Project and initiated the project in Truchicultura Vetiver Moconoque -Edo . Merida . The artisans of the two companies participate annually in two very famous exhibition fairs in the country: The Fair of corn and Dyer International Fair, in this last fair in the month of August, they won the first prize as the best exhibitors for its novelty and the ecological concept involving vetiver in the support of low-income communities and the environmental area.



#### Edo. Barinas

Activities made by "Pavimentadora Life" C.A. as social action to their communities ; coordinated and advised by Dr. Oswaldo Luque M., Luzmila Pebes Master Artisan and Jorge Romero . These activities are conducted jointly with Nulvia Rojas and Yajaira Plaza of the People's Ministry for the Environment, Barinas. A notorious activity is the plantation of Teak (Tectona grandis) in approximately one hectare which was combined with vetiver to improve soil conditions. The plantation of Teak was done with the aim of mitigating the actions of the industrial factory which is located near the Santo Domingo river. The results of this combination has allowed excellent growth. It begins with vetiver handicraft training with neighboring districts to the factory, then working in the Community Rural La Mulita, which makes treatment of a slope with vetiver seed donated by the company and establishing a water treatment experiment from a house, which were found dumped in a clean creek, later the Military School José Antonio Páez, in Barinitas is also involved in the project, conferences are held to more than 500 students and teachers, vetiver handicraft courses, these activities also extends to various groups of teachers from primary and secondary schools. Prof. Héctor Sánchez del Liceo, performs outreach with vetiver and student have conducted research in recent years which is required in the core of study, they also carried the protection of areas with erosion together with students. Craft courses were conducted in rural communities in " "Las Terrazas de Santo Domingo". "Las Doradas" recently initiated another handicraft course with vetiver Barinitas Artisan Market, where more than 30 people are being trained in this area. There have been three - RETAIL EXPO at the Ministry of Popular Power for the Environment. In short, in these three years over 2,000 people have been involved with the vetiver, including children that complement their training and gain skills through crafts.



On the left, Teak plantation combined with vetiver, right Lecture of Dr. Oswaldo Luque M. "The Vetiver, ecological and economic development" in the Military High School Barinitas Jose Antonio Paez, Edo Barinas. 2009.

### 3. Mérida State

### Moconoque truchicultura c.a

A trout farming company that has been supporting the project Vetiver in that region of the Venezuelan Andes for three years, its objectives : alleviating social disparities, promoting spiritual and moral values in all strata of the population, from children to the elderly. Initially focused on vetiver handicraft, and later evolved into the School of Work

, Arts and Crafts Moconoque . In conjunction with the Faculty of Forestry at the University of the Andes , several activities have been forged: Planting vetiver on a slope at 2,600 meters, Workshop on Theoretical Foundations practices and successful experiences with vetiver in Venezuela , held in Merida in the year 2010 , these activities were complemented by a Expo Sale of Vetiver of the artisans of the School. Some members have conducted outreach of the knowledge and usage of vetiver in schools in Southern Peoples , Ms. Marina Rivas being one of the leaders of these activities.



Left, vetiver representation of the condor of the Andes (in extinction). Right Workshop participant with vetiver successful experiences in Venezuela, issued jointly in the School of Forestry at the University of the Andes, Merida Venezuela



## 4. Anzoategui State

San Marino Ceramics C.A :

This company also has involved vetiver handicrafts among their neighbors, having reached a year of the Project, and has also promoted the planting of the plant in the

backyards of the participants and close relations with local government, Counties and others.

# Social Innovation Committee for Entrepreneurship (CISE)

This organization created within the aforementioned companies will lead all actions taken in the field of social support to communities neighboring the factories. With goals to make alliances with other institutions and even have external funding to be applied to projects in progress or those who are started.

The Vetiver Development in Venezuela through companies .

Many companies have been pioneers in planting vetiver on a larger scale, are mentioned including: Biogranja, Antierosión Vetiver, Mountain Oasis, Venezuela Vetiver, Vetiver Reforestation in Venezuela, Vetigrass FP, Vetiver Environmental Solutions (SAVER), Investment LuqueM, Vetiver The Marroquina, ArteVetiver, Vetiver and more.

## **Ecological Deposit**

The Ministry of Environmental Miranda State , played a key role in the usage of vetiver in a large scale. In recent years, every project that involves damage to the environment, should include the planting of vetiver as environmental mitigation measures. And there is an obligation to establish a bond , if the executor of the project does not comply with the provisions , the Ministry executes the bond and plants vetiver according to technical guidelines set by the officials.

## Conclusions

1. We conclude that from the year 2006, after the ICV 4, there has been a resurgence of vetiver in Venezuela. Due to the increasing awareness of the effects of this plant in the environmental field, especially in slope protection.

2. Handicraft projects continue to rise to help new businesses that have incorporated this activity to support communities around its areas of action.

3. It is estimated that over 100 million vetiver plants have been planted in Venezuela that has a significant positive effect on the carbon cycle.

4. Research activity has declined, led to economic problems in the country's universities, among other causes.

5. The Vetiver Network International, the Latin American and Venezuelan Vetiver and Vetiver Network, and the aforementioned institutions and companies have played a major role in the dissemination of knowledge and applications of the Vetiver System in Venezuela, after ICV4.

#### **Brief Summary of the Senior Author**

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