

PROMOTION OF VETIVER GRASS TECHNOLOGY IN THE PHILIPPINES: THE VETFARMS INC EXPERIENCE

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Abstract

This paper chronicles the experience of the author in promoting the use and propagation of vetiver grass in the Philippines. Through a vetiver study tour scholarship given by the Royal Development Projects Board in 1994, the author learned about vetiver propagation and application. Observing the different vetiver projects of His Majesty the King of Thailand, the author applied the lessons learned in similar projects in the Philippines. As there was no vetiver program in the Philippines that the author could work with, an advocacy program was carried out by her group at their own initiative. An experimental nursery gave out sample seedlings to farmers, students and researchers.

But the acceptance of vetiver grass technology (VGT) cannot be achieved by advocacy alone. The author brought VGT to the public's attention through its commercialization. Commercialization was important in the success of vetiver for two reasons: farmers want to see the immediate economic benefits of the grass before they plant it and interested users of the technology are hesitant because there is no sufficient supply of the seedlings. A sound marketing strategy and information campaign was instrumental in the acceptance of the technology by policymakers, industries and farmers. To date Vetiver Farms, Inc or VetFarms is the largest commercial vetiver nursery in the Philippines, supplying the needs of both government and private corporation projects. It has been featured in several national newspapers and in television programs.

Introduction

In December 1994, the author was among the three Philippine delegates chosen to be part of an observation tour on vetiver grass in Thailand. As project development officer of the Department of Environment and Natural Resources (DENR), the author was sponsored by the Royal Development Projects Board of Thailand to a two-week study tour and training on the grass. She was able to visit sites where vetiver was widely used and propagated. The sites included the Huai Hong Khrai Royal Development Study Center in Chiang Mai province; the Doi Tung Development Project in Chiang Rai province; the Huai Sai Royal Development Study Center in Phetchaburi province; the Chaipattana-Mae Fah Luang Reforestation Project at Nong Phlap, Hua Hin district of Prachuap Khiri Khan province; the Khao Cha-ngum Rehabilitation Project in Ratchaburi province; and the vetiver nursery of the Land Development Regional Office 10, Ratchaburi province. The lessons learned from these project sites were the basis of the author's effort in promoting vetiver.

Initial Research and Trials

Back in the Philippines, the author started researching and sourcing vetiver in the Philippines. Some samples from Rizal and Bulacan provinces were taken and propagated in the nursery of DENR and the author's experimental nursery in Pampanga. Vetiver was planted in various media in polythene bags to test its growth properties. From this small stock of mother plants, the author started propagation in 4 x 6" polythene bags as is done with tree seedlings. Aside from this, tissue-cultured vetiver plants were sent to the author. The tissue-culture samples came from the laboratory in Chiang Mai province.

Promotion Through Extension Work

As there was no vetiver program at that time, the author together with her DENR colleague (Ms Ernestina F. Jose) promoted the grass and did extension work with various sectors on their own.

Dove Foundation

One of the extension works done was a presentation with the Dove Foundation. The foundation is involved with providing livelihood to the victims of the Mount Pinatubo eruption. Sample seedlings were given out to the communities for planting in their resettlement area.

Palawan Foundation

Vetiver seedlings were provided at cost to the Bagong Pag-Asa Foundation for use in their sloping agricultural land technology farming.

Vetiver Network Philippines

One of the most important extension works done was the author's linkage with Vetiver Network Philippines (VETINETPHIL). The author was invited to join the network to share her experience and methodology in the propagation of vetiver seedlings. A propagation guide was included in the different publications of the network. The author was also appointed as the coordinator for Luzon of the network. The author made a presentation in the First Vetiver Workshop held in Ormoc, Leyte.

Academic

Vetiver Farms, Inc believes that environmental education should be done at all levels in school. In line with this, the company did extension work with academic institutions and students.

Ateneo de Manila University

In the second quarter of 1998, Vetiver Farms, Inc initiated talks with Ateneo de Manila University regarding research work to be done on vetiver by students and faculty. Vetiver Farms, Inc introduced the plant and its applications to the faculty of the department. These talks resulted in Vetiver Farms, Inc donating vetiver slips to be planted around the newly constructed science education complex which has slopes surrounding the whole building.

The Science Education Center, Ateneo de Manila University

The slopes around the SEC building were protected by vetiver hedgerows. Vetiver blended well with the carabao grass and the building's landscape. Several students initiated mini-projects studying the biology of vetiver.

Student Projects

Some of the student projects included:

- Effects of *Vetiveria zizanioides* leaf extracts on the red blood cell count of *Mus musculus*.
- Assessment of anti-inflammatory activity of *Vetiveria zizanioides* extracts on the paw of Sprague-Dawley rats.
- Effects of *Vetiveria zizanioides* extract on the pain threshold and thermal tolerance of *Mus musculus*.
- Comparative effects of *Vetiveria zizanioides* extract, adrenalin and nitro-glycerine on the diameter of rabbit ear meta-arterioles.
- Insect populations leaving near and around *Vetiveria zizanioides* hedges.
- Some graduate students, also, did a thesis on the morpho-anatomy of vetiver (histological studies on the root anatomy of *Vetiveria zizanioides*).

Live and Learn Study Center

The Prep 1 class of the Live and Learn Study Center was brought to the nursery on a field trip. The students were shown the different stages of the growth of vetiver in the nursery. They were taught the importance of vetiver grass to our environment. The students took part in the propagation of the grass with VetFarms farmers.

Vetiver Farms

With the little publicity from its extension work, the experimental nursery soon became a commercial operation. In the course of promoting vetiver, the author saw the major flaw of making the technology accepted and successful, and this was the lack of supply. As people are beginning to take notice of what this grass can do, replicating its success in Thailand was difficult simply because there were no available quality seedlings to be used in big projects. It was at this point that the author realized that a key to the technology's success was to make the seedlings available. This can only be achieved through its commercialization.

It was difficult to convince farmers to plant the grass in their farms because they did not see any economical benefit from it. There was also this misconception that vetiver is actually a weed and it would compete with the crops that they were planting. After a period of research and trials, the author's nursery, then called L and N Farms, was able to come up with an easy and practical propagation method which was ideal for volume production of uniform-sized, quality seedlings. The lessons learned in the Thailand study tour were valuable in this propagation trial. Vetiver seeds being sterile, commercial propagation of the grass became a challenging task. After four years, Vetiver Farms, Inc now boasts of six nurseries with the capacity of producing five million seedlings a month. The satellite nurseries are located in different provinces all over the Philippines, such as Pampanga, Iloilo, Laguna, Cavite and Antipolo.

Promotions and Marketing Strategy

VGT has a niche market so to speak, thus there is not much need for conventional advertisement. Instead, VetFarms believes in bringing the technology directly to the sector that needs it. Identifying the potential users of this technology, VetFarms provided these groups with information material regarding the use of vetiver to their specific application. This saves the company a lot, which makes our seedlings very affordable. Visual presentation through video and PowerPoint were done to show the characteristics of the grass and our successful projects. So, to further the interest of the people, VetFarms launched its own information campaign, starting with the construction of its own website. Designed to make not only the company but also the technology known to as many as it can reach, VetFarms' Internet site (www.vetiver.com.ph) is the first step to its worldwide information campaign. Vetiver Farms, Inc. was also featured in leading newspapers. The Business Friday section of the Philippine *Daily Inquirer* on 16 July and 17 September chronicled the beginnings of the company and its marketing strategies to promote VGT. The accounts presented were testimonies of the author's efforts to promote VGT in the Philippines. In the last issue of the *Manila Times* on 23 July 1999, VetFarms became part of history. In this report, vetiver was given recognition for its applications in preventing soil erosion. The company has also been featured in international television broadcast. ABS-CBN featured VetFarms in its program "The Global Filipino", which features successful Filipinos in the field of business. The program was beamed in different countries such as the United States, Australia, Hong Kong and the Middle East.

Effects of Promotion

Private sector: The response to the promotion efforts by the author and VetFarms Inc. are very encouraging. In the last five years, VetFarms has done more than 30 major vetiver application projects all over the country. Most of these projects are for private industries and corporations which risked using the vetiver technology for their environmental applications. It has elicited response even from remote places.

The Department of the Environment and Natural Resources: A presentation about VGT to former Secretary Victor O. Ramos got very good feedback and results. DENR has been recommending the use of vetiver grass for soil erosion control and slope stabilization in its Environmental Compliance Certificates. Being a regulatory tool, major development projects, which involve earth moving/clearing activities, are required to use vetiver in re-vegetating the affected areas. The secretary was also planning to put up a countrywide vetiver nursery through its provincial offices during his term. VetFarms is one of the biggest suppliers of vetiver seedlings to the Department of Public Works and

Highways (DPWH). The department has used vetiver successfully protecting slopes in their road projects mostly in the southern part of the Philippines. Although there was scepticism about the technology in the beginning, the officials and field engineers of DPWH are now convinced of its effectiveness as compared to conventional riprap and stone walls. The most notable project is the Kalibo-Caticlan road project on Panay Island. This project, situated on a national highway leading to the world-famous Boracay beach, has attracted a lot of attention from both the locals and foreigners. People who got in touch with us after seeing the project used it as a model of vetiver successfully protecting slopes. Aside from their effectiveness, vetiver hedgerows are about 60 % cheaper than the conventional engineering methods used previously.

Handicraft industries: Local exporters of handicraft have signified their interest to utilize the leaves and the roots for their products. Although most of them know that vetiver leaves and roots make beautiful baskets, mats and ornaments, vetiver did not really prosper as they did not know where to get the raw materials. Through our promotion, they are now willing to experiment and manufacture more products out of vetiver, knowing that the raw material is available. VetFarms is now linking with manufacturers for possible collaboration on the production of different export products, which will create new job opportunities.

Export Products Made from Vetiver Roots Featured at the CITEM Fair

There are far too many inquiries of people's organizations and cooperatives regarding the subcontracting scheme of the company. The idea of the buyback scheme for our propagation is very attractive to groups and communities. This is because it provides them with livelihood without having to leave their home and their children behind. This scheme has served as a model to other project undertakings, especially those which are agricultural in nature.

Future Plans

VetFarms is currently doing a lot of research on the use of various parts of the grass for livelihood projects. The company would like to see more farmers benefiting from the grass and its myriad uses. Further promotion through information, education and communication campaigns to farmers and policymakers is a major thrust of the company. VetFarms plans to publish a book of the lessons learned from promoting and using vetiver grass in different projects.

Conclusion

The Philippines is an agricultural country, and the potential for vetiver to be a major agricultural product is very promising. With the frequent typhoons and flooding, its use for soil erosion control and slope protection is the one popularly touted at the moment. But the other applications of the grass and its by-products are many and are yet to be explored. Because of its resilience to different weather and soil conditions, vetiver can be a tool for poverty alleviation for people in the countryside where crops are often destroyed by pest and typhoon. VetFarms nurseries alone provide livelihood to no fewer than 100 families. During the difficult period of El Niño, vetiver propagation was the only activity in the fields of Pampanga, for there was no irrigation for the rice fields. The women are now cutting off the leaves of mature plants for drying for roofing material and for handicraft manufacturing. Thus, the promotion of the grass and its numerous uses should be done both at the grass-roots level and at the policymaking level. The potential is there; it just needs to be tapped. Information about the uses of vetiver is essential and both government and private sector should pursue promoting it together.

His Majesty King Bhumibol Adulyadej's project through the Royal Development Projects Board, sponsoring people from other countries to the vetiver study tour program, is an effective tool of promoting the grass to the different parts of the world. If every participant to the study tour embarks on a vetiver promotion program in his or her country, VGT will benefit a lot of people. The author's and VetFarms' modest accomplishments in promoting vetiver in the Philippines are the product of this study tour, which is truly educational and inspiring. This benevolent project should be continued, and if possible replicated.