

Promotion of Vetiver Grass Technology in The Philippines: The Vetfarms Inc. Experience

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Abstract :

The paper chronicles the experience of the author in promoting the use and propagation of the Vetiver grass in the Philippines. Through a Vetiver study tour scholarship given by the Royal Projects Development Board in 1994, the author learned about the 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 through their own initiative. An experimental nursery gave out sample seedlings to farmers, students and researchers.

But the acceptance of Vetiver technology cannot be achieved by advocacy alone. The author, brought the Vetiver technology to the public's attention through its commercialization. Commercialization was important in Vetiver's success because of 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 were instrumental in the acceptance of the technology by policy makers, industries and farmers. To date Vetiver Farms Inc. is the largest commercial vetiver nursery in the Philippines, supplying the needs of both government and private corporations' projects. It has been featured in articles of several national newspapers and in television programs as well.

I. 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 Project Board of Thailand to a two-week study tour and training on the grass. She was able to visit sites where vetiver is widely used and propagated. The sites included Huai Hong Khrai Royal Development Study Center in Chiang Mai Province, the Doi Tung Development Project in Chiang Rai Province, Huai Sai Royal Development Study Center in Petchaburi Province, the Chaipattana - Mae Fa Luang Royal Initiated Reforestation Projects at Nong Plub, Hua Hin District in Prachuab Khiri Khan Province, the Khao Cha-um Soil Development Project in Ratchaburi Province, and the vetiver nursery of the Land Development Regional Office 10 and Ratchaburi Province. The lessons learned from these project sites were the basis of the author's effort in promoting vetiver.

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Thailand Study Tour

II. INITIAL RESEARCH AND TRIALS

Back in the Philippines, The author started researching and sourcing vetiver in the Philippines. Some samples from Rizal and Bulacan province were taken and propagated in the nursery of DENR and The author's experimental nursery in Pampanga. Vetiver was planted in various media in polybags to test its growth properties. From this small stock of mother plants, The author started propagation in 4x6 polybags as being 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. Tina Jose) promoted the grass and did extension work with various sectors on their own.

Dove Foundation

One of the extension work done was a presentation with the Dove Foundation. The foundation is involved with providing livelihood program 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 given at cost to the Bagong Pag-Asa Foundation for use in their SALT farming (Sloping Agricultural Land Technology).

Vetiver Network Philippines

One of the most important extension work done was the author's linkage with Vetiver Network Philippines. The author was invited to join the network to share her experiences and methodology in propagation of the 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 presented in the First Vetiver Workshop held in Ormoc, Leyte.

Academe

Vetfarms believe 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 slope surrounding the whole building.

The Science Education Center, Ateneo de Manila University

The slopes around the SEC Building 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.

Some of the student projects included:

1. Effects of *Vetiveria zizanioides* leaf extracts on the red blood cell counts of *Mus musculus*
2. Assessment of anti-inflammatory activity of *Vetiveria zizanioides* extracts on the paw of Sprague-Dawley rats
3. Effects of *Vetiveria zizanioides* extract on the pain threshold and thermal tolerance of *Mus musculus*
4. Comparative effects of *Vetiveria zizanioides* extract, Adrenalin and Nitroglycerin on the diameter of Rabbit Ear Metaarterioles
5. Insect populations leaving near and around *Vetiveria zizanioides* hedges

Some graduate student, also, did a thesis on the Morpho-anatomy of Vetiver (Histological Studies on the Root Anatomy of *Vetiver zizanioides*)

Live And Learn Study Center

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

III. 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 is 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 is to make the seedlings available. And this can only be achieved through its commercialization.

It was difficult to convince farmers also to plant the grass in their farms because do not see any economical benefits from it. There is also this misconception that vetiver is actually a weed and it would compete with the crops that they are 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 is ideal for volume production of uniform sized, quality seedlings. The lessons learned in the Thailand study tour was valuable in this propagation trials.. With vetiver seeds being sterile, commercial propagation of the grass became a challenging task. After four years of Vetiver Farms, Inc. now boasts of six nurseries with the capacity of producing 5 million seedlings a month. The satellite nurseries are located in different provinces all over the Philippines such as Pampanga, Iloilo, Laguna, and Cavite, and Antipolo.

Promotions And Marketing Strategy

The Vetiver grass technology 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 power point 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 webpage. Designed to make, not only the company but also the technology, known to as many as it can reach, Vetfarms' webpage is the first step to its worldwide information campaign (www.vetiver.com.ph). Vetiver Farms, Inc. was also featured in leading newspapers (annex A). The Business Friday section of the Philippine Daily Inquirer on July 16 and September 17 chronicled the beginnings of the company and its marketing strategies to promote vetiver technology. The accounts presented were testimonies of the author's efforts to promote vetiver technology in the Philippines. In the last issue of the Manila Times on July 23, 1999, Vetiver Farms 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 USA, Australia, Hongkong and the MiddleEast (annex B).

Effects Of Promotions

Private Sector

The response to the promotion efforts by the author and VetFarms Incorporated 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 who risked using the vetiver technology for their different environmental applications. It has elicited response even from remote places (annex C).

Tagaytay Highlands/Midlands Project before (left) and after (right)

Government Agencies

The Department of Environment and Natural Resources

A presentation about the vetiver technology to former Secretary Victor O. Ramos got very good feedback and results. The DENR has been recommending the use of vetiver grass for soil erosion control and slope stabilization in their Environmental Compliance Certificates (Annex D). Being a regulatory tool, major development projects, which involves earth moving/clearing activities are required to use vetiver in "re-vegetating" the affected areas. The Secretary was also planning to put up a nationwide vetiver nursery through its provincial offices during his term.

The author and Vetfarms representatives during a presentation with (DENR) Secretary Victor O. Ramos

The Department of Public Works

VetFarms is one of the biggest suppliers of vetiver seedlings to the DPWH. The Department has used vetiver successfully protecting slopes in their road projects mostly in the southern part of the Philippines. Although there was skepticism about the technology in the beginning, the officials and field engineers of the DPWH are now convinced of its effectiveness as compared to the conventional riprap and stone walls. The most notable project is the Kalibo-Caticlan road project in Panay Island. This project being situated on a national highway leading to the world-famous Boracay beach, has attracted a lot of attention from both the locals and foreigners. This actually served as a model of vetivers success in protecting slopes to people who got in touch with as after seeing the project. Aside from its effectivity, vetiver hedgerows are about 60% cheaper than the conventional engineering methods being used before.

Kalibo-Caticlan Road (L-Before and R-After)

Handicrafts Industries

Local exporters of handicrafts 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, it did not really prosper as they do not know where to get the raw materials. But through our promotions, they are now willing to experiment and manufacture more products out of vetiver knowing that the raw materials are available. VetFarms is now linking with manufacturers for possible collaboration on production of different export products, which will create new job opportunities.

Export Products made from Vetiver Roots featured at CITEM Fair

Peoples Organization and Cooperatives

Inquiries regarding the subcontracting scheme of the company are far too many. The idea of the buyback scheme for our propagation is very attractive to groups and communities. This is because it provides them livelihood without leaving their home and their children behind. This scheme has served as a model to other project undertakings specially those, which are agricultural in nature. Farmers holding mother plants in Pampanga nursery

Future Plans

VetFarms is currently doing a lot of research, in 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 of uses. Further promotions through information, education and communication campaign to farmers and policy makers is a major thrust of the company. VetFarms plans to publish a book of its experiences, the lessons learned from promoting and using vetiver grass in different projects.

IV 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 are the ones being popularly utilized at the moment. But the other application of the grass and its by-products are many and are yet to be explored. And because of its resiliency 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 provides livelihood to no less than 100 families. During the difficult periods of El Nino, vetiver propagation was the only activity in the fields of Pampanga for there were no irrigation for the rice fields. The women are now cutting off the leaves of mature plants for drying for roofing materials and for handicraft manufacturers. Thus, the promotion of the grass and its numerous uses should be done both in the grassroots level and the policy making level. The potential is there and it just needs to be tapped. Information about its use is essential and both the government and private sector should pursue promoting it together.

His Majesty The 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 country, the vetiver technology will benefit a lot of people. The author's and Vetfarms modest accomplishments in promoting vetiver in the Philippines, is the product of this study tour, which is truly educational and inspiring. This benevolent project should be continued and if possible replicated.

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