### THE REAL COST OF A BETTER ENVIRONMENT

### Aldo Miranda

NOBS Anti-Erosion El Salvador

#### Abstract

Nowadays the level of worldwide environmental degradation is common knowledge, as is the rapid depletion of natural resources in Third World nations. This reality has generated all sorts of environmentally mitigating initiatives which have been implemented worldwide, motivated by true concern. Some have been government initiatives, others have resulted from efforts by the international community and very few have been launched by the private sector.

In El Salvador, the smallest and most densely populated and environmentally degraded country in the Americas, a private firm has taken the lead in solving one of the biggest environmental problems – soil erosion at levels of 143 t/ha/yr – and has done so in a profitable manner. Our experience shows how most government policymakers, private volunteer organizations and international donors need to see the benefits of involving the private business sector in the promotion and implementation of new and simple technologies that, in the near future, will stop the environmental degradation clock, and will do so at low cost.

#### Introduction

As we all know, world environmental degradation has reached such levels that, in some of our countries, the subsistence of various species, including mankind, is threatened. This has prompted all sorts of responses, actions, criticisms, studies and discussions. We could spend hours enumerating many more forms of reactions when dealing with environmental issues, though in the end no actions are taken.

El Salvador is a Central America country of 20 000 km² of land area (about 1/25th the size of Thailand) and a population of more than 5.8 million and it has one of the highest levels of soil erosion in the world – equal to Haiti's. The soil erosion problem is not new. It was documented back in 1924 by Stanley. Then in 1946, Bourne described "Soil erosion: The biggest agricultural and economic problem of El Salvador" and found that 25 % of the territory presented serious levels of soil erosion, and 60 % to a lesser degree.

## What have the governments of El Salvador done?

The governments of El Salvador have known about the problem for a long time, but their traditional reaction has been to say, "Let's make a study of the problem", "Let's start with pilot project measures", "Let's validate these measures", and so on. And when history repeats itself, there is a new government in power whose first reaction is to invalidate all previous works and start all over again.

# **NOBS Hidrodifusion**

In this context, our company, NOBS Hidrodifusion, began operations in 1985, originally with the idea of developing an essential-oil extraction industry. This happened at a time when the country was undergoing a civil war and nobody was investing in any type of business. The motivation to do it came from the idea to start a new agro-industrial export business away from traditional export crops that would eventually generate foreign exchange for the country. Our stockholders put up all the capital investment needed for the research and development of the project; no bank or donor would provide

support for such an innovative and daring undertaking. Since then, our company has struggled for ten years trying to enter the world market of essential oils, which is not an easy or open one.

It is during this process that we had the luck of coming across one of the famous little vetiver green books brilliantly developed by Mr Richard Grimshaw. The information on that book opened for our company a whole new chapter. Suddenly we realized that we were holding a very large nursery of 21 million vetiver stumps (110 ha) which we had for oil extraction and which, according to the green book, had other beneficial uses.

The questions came up: What do we do with them? How do we promote the use of vetiver hedges against erosion? Could we make a profit out of it and at the same time benefit the country? Would people accept it, use it? How much should it cost?

## **What Came Next?**

The company drew a strategy to enter a new market – the environmental market, in the field of soil conservation. We began by hiring two young agronomists. They used to work for the government extension agency; they were true believers of the wonders of vetiver, even before seeing it really work: they were convinced by the literature (the green book) and by a conference organized by Mr Richard Grimshaw in El Salvador in the summer of 1994.

By the way, when Mr Grimshaw visited the country, the government of El Salvador knew of the existence of our plantation, because it had received material from our nursery for research purposes, but it never informed Mr Grimshaw about it. He left with the impression that there was not enough planting material in El Salvador, though he pointed out in his report that, if a country could benefit from the use of vetiver for erosion control, it was El Salvador.

In parallel, the decision was taken to embark on this new adventure, looking at it as if we were selling any other goods such as fertilizers, seeds or any other commercial services.

## What Did This Imply?

Designing a marketing strategy involved advertising oriented to promote the demand of the product. The contents of the advertising campaign had to educate the public about the soil erosion problem. It had to show how, what the product was, how it could help the consumer, how it worked, and where to get it. An important publicity agency was contracted, with experience in mass educational media campaigns.

One of the first comments we got from the advertising director was: "Nobody has ever made an advertising campaign for a plant. I checked the history of the industry, and it has never been done."

The educational campaign comprised radio spots, comic books, newspaper articles, TV reports, agricultural and construction fairs and posters. Our campaign focus was three months before the planting season for agriculture and year-round for the construction clientele.

This effort was accompanied by a series of technical presentations to all influential sectors of Salvadorian society: politicians, bankers, businessmen and international donors' representatives. The philosophy here was, "If you are not going to support it, at least do not interfere with it", and that is the way it has been.

NOBS Hidrodifusion began selling and planting material in the summer of 1995, with a lot of doubts in our minds, but fully convinced of the efficiency of vetiver in preventing soil erosion and of its capacity to stabilize steep slopes. We offered the planting material at US\$0.063 per stump of about 10 cm in diameter. We also provided planting services, training to trainers and users.

Our sales in the first year were US\$30 000; the following year they increased to US\$250 000, and continued to increase by about eight % annually. Our efforts to provide material and planting services have translated into more than 1000 km of vetiver barriers planted throughout the country, from major

highways to small hillside plots. We could not have made this on our own if it has not been the result of teamwork between our technicians and a group of visionary construction firms and private volunteer organizations which were prompted by the aggressiveness and eagerness to sell vetiver and the technology of our personnel.

This experience has allowed us to compare different modalities of promoting the use of vetiver hedges in El Salvador:

- The government extension services with their small demonstration plots and small nurseries are wasting time validating an ancient technology or promoting the use of many different technologies but really are not making a difference given the magnitude of the problem. On top of that, they manage economic resources that usually are used on payment of salaries, vehicles and office supplies, and in some cases even political campaigns.
- In the case of the international donors, again most project officers in charge of a project have their own preferences for a specific technology, regardless of whether it is appropriate or not, or if it really works or not. In many cases, the majority of the project funds are consumed in studies and administrative overheads with very little in actual investment.
- During the past 15 years the country has experienced one of the biggest expansions of private volunteer organizations dedicated to mitigating environmental degradation. These organizations have carried out thousands of small and diffuse actions to save the rainforest, some to save the turtles, the parrots, and reforestation campaigns with survival rates of less than five %, not to mention people who plant in hills to survive, not as a hobby. In summary, very few concrete, meaningful actions have been taken.

#### Conclusion

Our proposal to all of you is that if we really want to make a difference by spreading the benefits of the vetiver grass technology in the world, we had better start looking at the possibility of doing it for business.

Our experience shows that, dollar for dollar, you would obtain more out of a group of people that are getting paid for performing a task, and if the task is not completed they do not get paid. This is better than someone doing it for just a salary regardless of results.

We are not in any way diminishing the loyal and dedicated attitude of many professionals that really take their jobs seriously, but unfortunately these are a minority.

As a last thought I would like to encourage you to be innovative in coming up with new ideas of how we can achieve a marriage between economic profit and environmental mitigating actions.