

RIO+20

United Nations Conference on Sustainable Development

TVNI AND VETIVER BRASIL WILL PRESENT

"Use of the Vetiver plant in the solution of multiple social and environmental problems"

AT

Arena Space Bar (HSBS Arena) - Auditorium RNA-3

BY

Lucio Lambert - Vetiver Brazil / Ribeiro Foundation

INTRODUCTION

The Vetiver System is being researched, tested and applied with great success for over 40 years and more than 100 countries to solve many problems arising from human-nature interactions with the support of dozens of governments, United Nations, World Bank and many others international institutions.

The plant Vetiver (*Chrysopogon zizanioides*), originating in India, has many qualities of resilience and adaptation that allows its application in almost any soil type - including the highly contaminated - and climates. The plant requires no maintenance and can even be self- regenerate in case of fire.

Moreover, vetiver has extraordinary characteristics physiological combined in a single plant that allows different types of solutions to environmental problems.

One of these features is the root system, strong hair that can grow more than 4m vertically stapling the unstable soil surface preventing landslides and debris flows. The shoots of the plant has stiff stems that form a tight barrier that acts as a filter against flows of mud and sediment. In this sense, technology green Vetiver is the most efficient tool for stabilization and bioengineering land in mitigating and eliminating risks of natural disasters like we had in the mountainous region of Rio de Janeiro in January 2011.

According to FAO (Food and Agriculture Organization of the United Nations), food security is one of the world's greatest challenges in the years to come. The world food production must increase by 70% by the year 2050. However, what we see is a slow decline in agricultural productivity increases with the contamination of soil and water erosion and the threat of extinction of species in cultivation areas. In a nutshell, the challenge for agriculture in the future is not only produce more, but how to produce better. Vetiver may help. When

applied in a straightforward manner on farmland that green technology can preserve and restructure the soil improving the quality of microbiology essential to promote the improvement of crop productivity and quality.

Another environmental problem that seriously affects our cities and agricultural areas, too, is water quality. Vetiver can survive and grow normally in the water and has great ability to absorb nutrients such as nitrogen and phosphorus, heavy metals, bacteria, toxins, herbicides and many other contaminants present in sewage in cities as in rural areas of the rivers.

Possibly the most important virtue of the Vetiver System as a tool for solving environmental problems is total awareness and participation of the community where it is applied. The beneficiaries are fully included in the process, can understand why and how the Vetiver System will work and how they can generate additional income to the plan, is using it in the production of handicrafts and essential oils, is the sale of seedlings to neighbouring communities.

We look everyone!

Lucio Lambert - Geologist - Vetiver Brazil / Ribeiro Foundation

LuciFaria - Lassel - UFF

Leonardo Fragoso - Lassel-UFF

Debora Rebel - Geography - UFF