VETIVER SYSTEMS PROMOTED ALL OVER THE WORLD BY THE VETIVER INTERNATIONAL NETWORK

The <u>Vetiver International Network</u> continues promoting and disseminating the environmental values of the Vetiver Systems to the world. *Vetiver Grass Technology* is applicable at any scale, relatively easy and low cost. It has particular relevance for communities of all types and sizes, and for the mitigation of some of the negative impacts of climate change.

The TVNI website summarizes the main benefits of Vetiver grass: reducing soil erosion and rainfall runoff, rehabilitating land and reducing flooding; stabilizing and protecting soil related infrastructure such as roads, bridges, canal/river/levee banks. Vetiver can absorb many heavy metals, nitrogen

and phosphorous from water and this function of the plant opens a wide perspective for the use the vetiver technology to solve environmental problems of great impact in all countries. Moreover, Vetiver grass can also generate other environmental benefits including improving soil fertility, providing habitat to wildlife and insects, and sequestering atmospheric CO2.

The Vetiver Network International (TVNI) is a global community of users, researchers and developers that promote and share information relating to the *Vetiver Grass Technology* (VGT), also known as the <u>Vetiver System</u>, that is used under multipurpose applications. The TVNI website presents information on <u>current</u> <u>members of the Network</u>, who operate in 44 countries in Asia, Africa, Europe and Latin America. Through the documents published by the website it is possible to know the great variety of projects in progress addressing a wide range of environmental and engineering soil and water related problems.

<u>The Vetiver grass</u> has been known to India since ancient times and the species used by the Vetiver System (*Chrysopogon zizanioides*) originates in the State of Tamil Nadu, South India. Today this plant is known and cultivated in many countries and the list of <u>Vernacular names of Vetiver</u> published in the Blogspot of the Network gives an idea of its popularity.

Vetiver is a fast-growing non-invasive plant with an extensive, dense and deep root system and strong stems with adaption to large range of climates. Vetiver is considered as the best candidate for earth repair because it is perennial and requires minimal maintenance. Vetiver can be used in the tropics and semi tropics, and other areas where there are hot summers, and winters that do not include permanently frozen soil conditions. It has a strong fibrous root system that binds the soil to a depth of three meters and can withstand the effects of tunnelling and cracking. Even when all surrounding plants are destroyed by drought, flood, pests, diseases, fire or other adversity, Vetiver will remain to protect the ground.











The <u>Vetiver International Network</u> shows the main advantages of the Vetiver System for local communities, through descriptive sheets presenting different aspects:

- Agriculture. Descriptive sheets: <u>General uses;</u> Forage and <u>Biomass;</u> Soil and Water Conservation; Landscaping.
- Infrastructure soil stabilization and erosion control. Protecting communities and their roads, bridges, dams, railroads, buildings, ports, river banks and levees. Descriptive sheets: <u>Steep slopes Rural Road; Highways; Railroads; Public Utilities; Bridges.</u>
- Treatment of contaminated soil and water. Cleaning polluted water, decreasing water born diseases, treating wastewater and sewage, mitigating industrial and mining pollution. Descriptive sheets: <u>Mining large scale</u>; <u>Landfills</u>; <u>Contaminated water and effluent treatment</u>.
- Disaster mitigation. Vetiver Systems can prevent disasters caused by flooding that create havoc for communities and also helps stabilize landscapes and infrastructure after disasters. Descriptive sheets: <u>Coastal erosion</u>; <u>Upland flood</u> <u>control</u>; <u>River banks</u>; <u>Canals</u>, <u>dyke and levee banks</u>; <u>Dams</u>; <u>Land Rehabilitation</u>.
- Other applications. <u>The Vetiver grass</u> can also be used for other applications as forage for livestock, biomass, construction material, ornamental and environmental purposes, mushroom grown in cut-leaves of vetiver, or <u>traditional handicrafts</u>, strengthening the local economic and social development.

Vetiver is now being promoted in nearly 100 countries as a suitable plant for protecting slopes in different geographic areas with different soils and climatic conditions. The growth of vetiver roots and shoot varies in different areas, due to the differences in soil type, nutrient content, salinity, and climatic conditions. The applications of the Vetiver system also vary depending on the contexts and are always adapted with the support of local experts, services and universities.

The great variety of documents published by the TVNI website, presenting practices carried out in different contexts, represents a very useful tool to adapt *Vetiver Grass Technology* to the specific needs and characteristics of the territories. The Network encourage users to create vetiver web sites, blogs etc. and share their experience with other worldwide vetiver users.

The <u>Training Manual - *The Vetiver System*</u> published in December 2020 and produced by the Vetiver Network in cooperation with the Ministry of Waterways and Environment of Fiji, UNDP and GEF, also represents an important tool to guide the application of the *Vetiver Grass Technology* in different contexts.

The Vetiver System today ranks among the nature-based solutions recommended by the international community to cope with climate change and their use for bioengineering and conservation of natural resources have the potential to improve the environment and to create qualified jobs al local level.

To know more

Vetiver International Network





TVNI affiliates

Library on Vetiver

TVNI Papers

Vetiver Blogspot

Training Manual Vetiver System UNDP-GEF-TVNI

Vetiver system manual - contaminated water and land

<u>Vetiver system manual - infrastructure protection and disaster</u> <u>mitigation</u>

Manuals and documents in Spanish

Vetiver bioengineering in China

Vetiver Plant Guide - United States

Vetiver System in World Bank website

China Vetiver Network

Vetiver Australia website

Vetiver Network West Indies

India Vetiver Network in Facebook

Vetiver Peru Network

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