



FIRST INDIAN NATIONAL WORKSHOP

21 – 23 FEBRUARY 2008
Kochi, Kerala

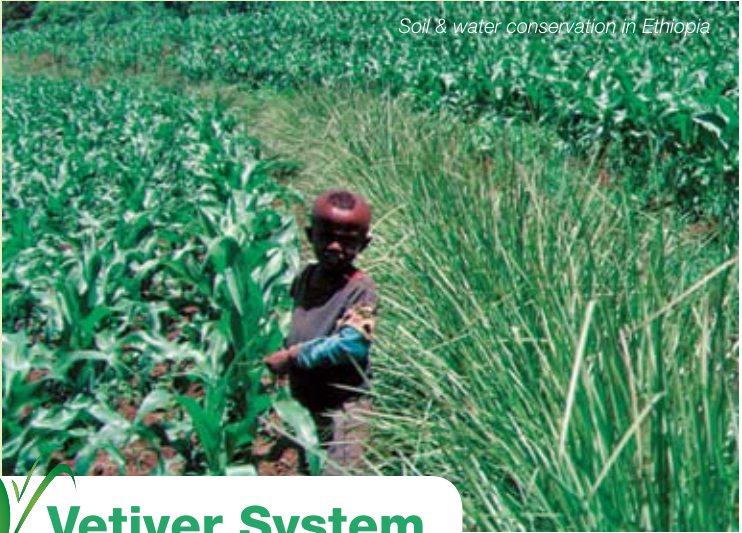
VETIVER SYSTEM FOR ENVIRONMENTAL PROTECTION AND NATURAL DISASTER MANAGEMENT



ORGANIZED BY
The Vetiver Network International (TVNI)
India Vetiver Network (INVN)

Visit the website: <http://www.vetiver.org>

The first National Workshop on Vetiver System for **Environmental Protection and Natural Disaster Management** is to be held in Cochin from 21 to 23 February 2008. The objectives of this workshop is to provide a venue for key stakeholders from agriculture, industry, highways, railways, irrigation, drainage, mining, health and urban management, both from the private and public sectors, to learn about the application of sustainable Vetiver System technologies and to discuss their potential use for environmental protection in India.



Soil & water conservation in Ethiopia

Vetiver System *- the technology & its versatility*

The Vetiver System (VS), originally known as Vetiver Grass Technology (VGT), is a low cost simple technology for soil and water conservation and environmental protection. It is an effective means of soil erosion and sediments control, water conservation, land reclamation, and water quality improvement through pollution control. Being vegetative it is also environmentally friendly. The root system can penetrate vertically up to 15 feet forming a compact live shield under the soil. It is a climax plant and therefore even when all surrounding plants are destroyed by drought, flood, pests, diseases, fire or other adversity, it can survive and thrive well.

The technology was first promoted for the agricultural sector by the World Bank for soil and water conservation and later extended by the Vetiver Network International (TVNI) to cover non agricultural sectors through bioengineering and phyto-remediation for environmental protection such as slope and embankment stabilization, reclamation of waste land, rehabilitation of contaminated land, water purification, pollution control, prevention or mitigation of natural disaster and recently, poverty alleviation (through handicraft industry).



VS on floats for waste water purification

Vetiver System implementation
for riverbank stabilization
(an example):



<< Before VS implementation



<< After VS implementation

Applications of *Vetiver System*

Agriculture

Control rainfall run off, soil moisture recharging, stabilization of soils during intense rainfall and floods, trapping sediments, wind erosion control, forage, pest control and reducing agrochemicals load into ground water and water resources.

Water Management

Improving ground water recharging, reducing siltation of drainage systems, lakes and ponds, stabilization of canals, river banks and drains, protection of ponds, reservoirs and river banks from erosion caused by wave action, strengthening earthen dams against collapse, improved filtrations and reduced run off.

Bio-remediation

On-site and off-site pollution control from waste and contaminants, absorption of heavy metals, rehabilitation and stabilization of mining areas and landfills.

Bioengineering

Protection of structures such as roads, ponds, drains, canals, building sites, gully rehabilitation, stabilization of railway tracks and prevention of land slides.

Other applications

Carbon sequestering, disaster mitigation and vulnerability reduction, handicrafts using root and foliage, perfumes from root and medicinal purposes. Biomass production, paper making, mulch, thatch, reinforcing bricks, bio-fuel, pest control etc.



Railway stabilization in Eastern Madagascar

Origin & importance

The species of *Vetiveria zizanioides* L (recently reclassified as *Chrysopogon zizanioides* L) originated in South India and it has been promoted in more than 100 countries including India for Vetiver System applications. Of late Vetiver has emerged as one of the favorite subjects of research workers, extensionists, engineers, academicians, consultants, developers, politicians and farmers in many countries. It is probably one of the most researched non-agricultural and industrial crop plants to date.

According to reports from China, there is huge demand for Vetiver System in almost all tropical and subtropical nations. The private entrepreneurship applauded by the Chinese Government has become a driving force behind the Vetiver System. China has more than five corporates exclusively working on applications of Vetiver System in the southern province of Guangdong alone, apart from many research institutions.



Sea dike



VS in poverty alleviation



History of International Conferences on Vetiver (ICVs)

Four International Conferences were organized with specific themes.

- 1996: Vetiver Grass - A miracle grass (Chiang Rai, Thailand)
- 2000: Vetiver and the Environment (Cha Am, Thailand)
- 2003: Vetiver & Water (Guangzhou, China)
- 2006: Vetiver & People (Caracas, Venezuela)

Riverbank stabilization

Paper presentation and proposed topics:

RICHARD GRIMSHAW OBE

Chairman, The Vetiver Network International, USA (Emeritus Chief of World Bank Asia Agricultural Technical Division)

Introducing the Vetiver System (VS), vetiver networking, current activities, with emphases on agriculture, and future uses for energy/fuel and carbon sequestration.

PAUL TRUONG

Director, TVNI and Managing Director, Veticon Consulting, AUSTRALIA

- a) Various VS applications of wastewater treatments, (domestic, municipal, industrial effluent and landfill leachate disposal) and contaminated lands (industrial and mining waste).
 - b) R&D results on unique contributes of vetiver (uptakes, export and tolerances etc.) applicable for its use in environmental protection purposes.
 - c) Propagation and management of vetiver nursery.
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UMESH LAVANIA

Deputy Director, Central Institute of Medicinal and Aromatic Plants, INDIA

Brief history of vetiver in India. Focus on vetiver genotypes and potential of creating new applications, specific genotypes suitable for erosion control, pollution remediation etc.

LIYU XU

Coordinator, China Vetiver Network, and Professor of Agro Forestry, National Institute of Soils, Nanjing, CHINA

20 years of vetiver development in China. Progress and achievement with emphases on agro-forestry and bio-engineering (highways, railways, riverbanks, mine stabilization, and landfill protection).

M.P. SINGH & GEETIKA KALHA

India Vetiver Network & Earthizen Consulting, Punjab, INDIA

The importance of Methodologies required for Evaluating & Quantifying the Carbon Sequestering, GHG Emission Reduction, Fossil Fuel Replacement Capacity, Carbon Credits through a Community Development Project in Punjab, a case in hand.

VAN TRAN

Co-ordinator, Vietnam Vetiver Network, 2006 Vetiver Champion and Vice-Director of the Vietnam Institute of Geosciences and Mineral Resources, VIETNAM.

a) Vetiver System for natural disaster mitigation in Vietnam (landslides, flash floods, river and canal bank erosion). b) R&D results on unique contributes of vetiver (tensile and shear strength etc.) applicable for its use in disaster mitigation purposes.

P. HARIDAS

Co-ordinator, India Vetiver Network, INDIA

Effectiveness of VS for soil and water conservation in tea and other plantation crops, including selection of appropriate plant material.

DAVID BOOTH MBE

Co-ordinator, Indonesia Vetiver Network and Director, East Bali Poverty Alleviation Project, INDONESIA

VS for Poverty Alleviation and Sustainable Community Development in Mountainous East Bali

NARONG CHOMCHALOW

Co-ordinator, The Pacific Rim Vetiver Network, Chairman of the Continuing Committee for International Vetiver Conference, THAILAND

Other uses of vetiver: Handicrafts, medicinal, construction materials etc.

LAKSHMANAPERUMALSAMY

Director, School of Life Sciences, Professor and Head – Department of Environmental Sciences, Bharathiar University, INDIA

Vetiver Biomass production for restoration of contaminated soil and water.

SONGKIERT TANSAMRIT

Executive Vice President, PTT Public Company Limited, THAILAND

Vetiver system for soil and water conservation on the Burma -Thailand gas pipeline by PTT Co. Thailand, and community outreach programs.

CAMERON SMEAL

Associate Director TVNI and Environmental Manger, GETITA APA, Brisbane, AUSTRALIA

Vetiver System for industrial waste water treatment and disposal at Gelita APA, in Queensland, Australia.

REGISTRATION FEES	Students	Rs. 750.00
	Indian delegates	Rs. 1500.00
	Foreign delegates	\$ 200.00

* The registration form should be accompanied by a Demand Draft favouring **“National Workshop on Vetiver System**, payable at Cochin.



WEATHER

The weather during february in Kerala will be generally pleasant.

Venue

Hotel Sarovaram, Cochin, KERALA
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Sponsored by

Kanan Devan Hills Plantations (P) Ltd.
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Tata Tea Limited

No.1, Bishop Lefroy Road, Kolkatta - 700 020

Conference Convenor

Mr. P. Haridas

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