

# VETIVER SYSTEMS FOR LAND REHABILITATION

## LANDSLIP CONTROL MECHANISM BY VETIVER

Vetiver  
hedgerows

Vetiver  
roots

slipping zone on slopes  
usually 0~2 m depths

THE VETIVER NETWORK INTERNATIONAL



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**This drainage line in Fiji has been stabilized with vetiver for more than 30 years. It used to be barren and gullied**



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Hong Kong - Kowloon. Above, vetiver hedgerows and *Gmelina* trees planted on heavily eroded granite surface on fill behind airport. Below, 1994, one year after treatment. Photo credit: R. R. Bruns



Degraded hill park in Hong Kong was planted to vetiver and *Gmelina* trees. The result was startling. Vetiver hedgerows acted as a pioneer system that improved soil moisture by reducing runoff on these steep hillsides. Native species colonized the slope between the hedgerow and the trees grew very well. This is typical of what Vetiver Systems will do.



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A common feature in many West African countries is the occurrence of enormous gullies (ravines) that are cutting back into urban areas. IN the Congo (DRC) this huge gully was cutting back into the city of Kikwit. With the support of USAID and The Vetiver network a community project was undertaken with the local people reshaping the gully and planting it to vetiver. Top left - a huge gully near Kinshasa, the home owner had planted a little vetiver which gave some protection. Bottom - a panorama view of the reshaped gully. Top center - planted with vetiver. Top right the gully well covered 4 months after planting.

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Five years previously this land was heavily eroded pineapple plantation in Thailand. With the help of vetiver it has been rehabilitated into open parkland. Note in top right how native grasses are growing vigorously in the silt deposit behind the hedgerow where the man in the white shirt is standing

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**This bauxite mine tailings in Venezuela were rehabilitated using Vetiver System by a local environmental cooperative. Native species will colonize between the vetiver rows. This is a typical point source site for sediment and toxic leachates that if not for vetiver would end up in down stream drainage**

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**This orchard land near Santa Barbara, California was sliding down the hill. The engineered system was not working, . Vetiver was and the slide was halted. The owner rates vetiver at A+++**

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**This College campus in south China was in need of land rehabilitation. Vetiver System was applied (top right). The two bottom photos show how the landscape has been protected and stabilized and how native plants have colonized the vetiver**





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**Trial of Vetiver grass for protecting sand dunes in Quang Binh. Establishment of the demo site.**



**The sand dune is fully stabilized after one year, favoring the growth of other trees.**

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**A degraded slope in Vietnam. Before treatment (left), two years later (right)**



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**Slopes like this (left) on the Ho Chi Minh highway can be stabilized successfully with Vetiver (right). If the slope on the left is not stabilized it will slide. This is typical of land slides that occur after steep slopes have been cultivated. Vetiver can be used to protect and stop future slides**



# VETIVER SYSTEMS FOR LAND REHABILITATION

With its special and unique characteristics as presented above, Vetiver grass can replace and/or combine with other trees and other local grasses etc. forming a closed hedgerow to help reduce many types of natural disasters;

Vetiver grass is a very cheap alternative, costing only about 10-20% of other traditional methods;

At the same time, it is also very effective and easy to use, so that it can be used by local communities;

More importantly, in contrast to all rigid, structural methods, which deteriorate with time, as a living bio-engineering method, Vetiver grass improves its effect with time. It is an environmental friendly method.

