

Vetiver and its Mitigation of the Impact of Storms.

I intended to write about vetiver and its use in pest control, but with the havoc caused by the recent hurricanes and tropical storms along the US Gulf Coast and the less news worthy typhoons that have walloped Vietnam (the worst in 60 years), China and other parts of south east Asia this year, I thought I would once again bring to your attention vetiver's unique ability to substantially reduce the damage to land and structures caused by these extreme events before the disasters fade from short term memory!

Here is a quote from Tran Tan Van of Vietnam "We have just received a letter from Mr. Nguyen Thanh Hien, Chairman of the District, praising the use of Vetiver System. He confirmed that the sea dyke system of the district was heavily damaged, broken at six sections, totaling 1750 m. Due to water over topping many sections that even though well protected with rock wall on the outside were heavily damaged on the unprotected inner side. Mr. Hien, however, confirmed that those sections with VS planted on the inner face of the dyke remained stable. Mr. Hien, has asked for more planting material for the inner face of the dykes".

The damage to the sea dykes in Vietnam sounds uncannily like what we understood happened to some of the levees at New Orleans.

Also from Vietnam we have seen the impact of vetiver for stabilizing embankments and river banks against flood erosion.

Below: flooding river creates no damage to river bank planted with vetiver



Vetiver works well in mitigating the impact of large quantities of moving water because (a) it absorbs the shock and pounding of wave action (b) it significantly reduces the impact of the erosive power of storm water, and (c) its roots increase the shear strength of soil and therefore reduces the chance of slippage.

Recently I received from Claudio Zarotti of Italy an interesting interactive model that calculates (using different variables – soil type, slope, climate) improved shear strength of soil when protected by vetiver. The Italian version is downloadable from <http://www.vetiver.it/>. An English version can be obtained via email to: info@vetiver.it

An interesting aspect from Vietnam experience is that where vetiver has been planted for more than 3 years on dykes and embankments it has also acted as a pioneer plant that has allowed the introduction of bamboo and other trees and shrubs that were impossible to establish in the absence of vetiver. This confirms similar experience elsewhere in China and Thailand.

Below: Vietnam - Bamboo on left slowly displacing vetiver



I continue to be amazed at what the Vetiver System can do to help mitigate damage by extreme storms, and I continue to be just as much amazed by the fact that many national and local authorities either know nothing about the technology, or if they do know about it make no effort to use it. Regretfully the latter is often due

to inaction by the scientific community. The facts are published (<http://www.vetiver.org>); those of you who read this newsletter would help reduce the terrible damage inflicted by extreme weather events if you notified your colleagues and local/national authorities and encourage them to test and use VS under local conditions. This is particularly important in those areas of the world subject to tropical storms, cyclones, hurricanes and typhoons. We are told that these extreme events will become more frequent and violent – more reason to promote vetiver!

Next issue “Vetiver and Pest Management”!

Dick Grimshaw. October 31 2005

