

Keynote Presentation

Community Development and Poverty Alleviation Opportunities through the Use of the Vetiver System

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EXTENDED ABSTRACT

If all farmers in a community/watershed were to protect their land and farm infrastructure with Vetiver grass hedgerows the following would be possible:

Resource and Infrastructure Conservation and Protection

1. On farm soil loss would be reduced by as much as 90% and rainfall runoff by as much as 70%.
2. Soil fertility and manure/fertilizer losses would be significantly reduced resulting in crop yield increases by as much as 50%.
3. Soil moisture would be improved and the impact of drought would be significantly and possibly totally reduced.
4. Ground water recharge would be improved and streams, wetlands, and springs would be revived and have improved flows.
5. Survival and growth of young trees would improve by as much as 80%.
6. Improved spring and stream water quality due reduction in nutrient run off.
7. Protection of farm irrigation and drainage channels, roads, and buildings, and consequent reduction in maintenance costs.
8. Flood protection.

Direct Farm Benefits through the Use of Vetiver and its By-Products

9. Mulching using Vetiver shoots – Vetiver is long lasting mulch. Soil organic matter improvement. Increased yields and benefits.
10. Forage from regularly cut Vetiver hedgerows. Under higher rainfall conditions 60 -70 tons of dry biomass per ha.
11. Thatch and ropes.
12. Fuel for domestic use and for community electricity generation.
13. Vetiver plant propagation and production **for sale for off farm applications.**
14. Pest control - stem borer in maize. Crop production increases.
15. Leaves and roots can be used for handicrafts

Social Benefits to the Local Community

16. Improving availability and quality of drinking water (can be further enhanced by adding a few Vetiver roots – taste and antiseptic.
17. Waste water clean up – reduced fly incidence, elimination of odors, lowered BOD, heavy metals, stabilization of rubbish dumps and reduced health risks.
18. Stabilization of community infrastructure – roads, canals, levees, building sites.
19. Communal and wasteland protection and rehabilitation

20. Soil and water conservation application for new community forests – better tree growth
21. Atmospheric carbon sequestering and carbon credits
22. Biofuel for community energy production
23. Community handicraft programs.

The above can be achieved with very little effort. A farmer with 1 ha of land on a 20% slope would need to plant 17 rows - equivalent to 1,700 meters (14,000 plant slips) of vetiver hedgerow, this would take about 10 man days of planting. **The full introduction of a farm Vetiver hedgerow system would, if carried out by most members of a rural farming community, result in nearly all of the above benefits being available to each and every farmer.**

Community Vetiver Projects

There are a number of classic cases where vetiver has had significant impact on communities. These include: the East Bali Poverty Project (Indonesia) that focuses on improving the nutrition and education of the poorest children of some 10,000 families; Gunagxi and Dabie Mountain – both poverty areas of China; in Oaxaca, Mexico, vetiver was the proverbial “glue” that helped bring communities together; Congo DR for urban gully rehabilitation; Thailand hill areas; and Venezuela handicrafts.

- ***Handicrafts***

One of the interesting aspects that emerging from the development of the Vetiver System in Thailand (where it is championed by no less a person than the King of Thailand) has been its use as prime source of material for the handicraft industry. The Thais are expert at making “fine” handicrafts and have developed a technique for the preparation of vetiver leaves. They have run international training courses, and the technology has now spread to India, China, Indonesia and Venezuela. It should be noted that The Royal Development Projects Board of Thailand can arrange for Thai handicraft trainers to run training courses in client countries. Contact: Ms Suwanna Pasiri <spasiri_2000@yahoo.com>

- ***Policy and Constraints***

In the past a serious constraint to scaling up VS has been the lack of plant material. This needs to be addressed by involving the private sector and farming communities. There also lacks a commitment and understanding of the leadership of national governments and local administrations; the lack of focus of extension and conservation workers; and the failure to train users. There is a great need for policy provisions that sees the application of the Vetiver System as a multi-sector approach. In this way maximum benefits are attained for communities and for the country. Other constraints are mentioned in my earlier workshop presentation “Vetiver Grass, a Unique Plant, with Pan Tropical Applications that are Essential for Africa”.

References

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Introducing the Vetiver System, Vetiver Networking, Agricultural Applications, and Future Uses for Energy/Fuel and Carbon Sequestration. Dick Grimshaw

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Tyabji & Rashmi Ranade: Training Program (handicrafts) Thailand.

Vanessa Slinger: Spreading the Slips of Vetiver Grass Technology: A Lesson in Technology

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Brief Introduction to the Speaker

Dick Grimshaw graduated from London, Cambridge and The University of the West Indies in temperate and tropical agriculture. He joined the Zambian Agriculture Department in 1964, first as an extension worker then in Land Use Planning and Soil Conservation. In 1966 he joined the World Bank and was posted to Nairobi for 6 years. From Nairobi he worked on Bank financed projects in Eastern and Southern Africa and was directly involved with the Sodo Wollamo ADP, the dairy project and Sidamo coffee project – all in Ethiopia. In 1972 he started working in West Africa – notably in Nigeria where he was responsible for many agricultural projects. Following West Africa he was posted to India for five years (where he first learned about Vetiver Grass); thereafter until his retirement he was Chief of the World Bank's Agricultural Technical Division for Asia.

On retirement in 1994 he established the Vetiver Network (International) as a non-taxable foundation. Since then he has been responsible for the development of the Network that now extends to all parts of the tropics and semi tropics. He lives on the North West coast of the USA in Washington State