

Showcasing Vetiver Technology

By Abdul Samad and P Haridas –

Dissemination of knowledge through innovative methods at Blackberry Estate, Munnar, Kerala, India.

Blackberry Estate perhaps got its name from Jambolan also known as Indian blackberry an ever green tropical fruit bearing tree abundant in the southern slope of Pallivasal basin in Munnar. Wandering aimlessly through lovely Munnar, we ended up in the cliff of Blackberry Estate for peacefully taking our packed lunch. A caretaker took us to all the different corners of the estate with



amazing view of the valleys and mountain ranges but all our attention was drawn to the pathetic condition of the estate. 30% of the fertile soil has already been washed away due to ruthless farming practices. Cardamom and coffee planted in patches were found to be struggling to survive in spite of strong application of pesticides and chemical manure. There were considerable natural growth of a stunning variety of tropical trees but none of them were found to have a girth of only a few inches which we assumed was due to lack of fertile soil but the truth we later found out was they were chopped out by the 'care taker' and his mafia for charcoal making. We could accidentally locate elaborate arrangements to make charcoal from freshly chopped log in a difficult corner of the estate without the knowledge of the owner. The situation cannot be better explained than a beautiful teen age girl being abused by hooligans.

We wanted to save her. We wanted to own the property. It was rather easy because all of us- six middle class middle aged concerned citizens were willing to pay what the owners asked for.

It was not an easy task thereafter. With whatever little knowledge about organic farming, we ended up pumping in most of our resources but the condition of the estate worsened. Within a year of takeover the entire cardamom plants almost disappeared due to the attack of caterpillars. Coffee never gave us back the cost of plucking though. Vegetables just was not establishing due to the highly eroded soil condition. Great naturalists like K.V.Dayal took all the pain to visit the site frequently and direct us about the preventive steps to be taken. The unique methods suggested by him helped cardamom to survive back to its healthier form but our economy continued to be under threat. But we decided to meet the challenge.

Munnar was slowly growing to be a tourist destination. With funds collected from friends, we built 18 cottages and named the resort Blackberry Hills Mountain EcoLodges. The aggressive sales campaign brought in some money to be re-invested in soil conservation/agricultural activities of the estate.

Now we realized the root cause of the issue. It is the greed of man that helps erode the soil that he stands! Every creature in the planet earth help the nature some way or the other. And every creature is controlled by nature. Mighty man is beyond such control. On the other hand, all the activities of human beings, let



it be agriculture, manufacturing or tourism, end up against the natural process. We found ourselves the real culprits!

Whatever we did helped soil erosion. When we planted vegetables it indirectly helped a portion of precious fertile soil washed away to the ocean during next monsoon. When we made cottages, another portion disappeared. It is unfortunate that our planet is a globe, this is happening everywhere in the world especially so in the slopes like Munnar. We had to prevent it. How to?

Result of ruthless farming practices. Top soil washed away to expose rock.

Conventional methods suggested by experts were not financially

viable or were just not practical. Mr. George Zacharia, a senior officer of the forest department directed me to Mr. Haridas, then the R&D chief of Tata Tea and the Dhrohancharya of vetiver movement in India. It was a beginning of a new chapter, not only in Blackberry Estate... The year was 2004.

I bought 2000 vetiver planting material from KDHP Company, Munnar and planted in the loose soil.

Planting material developed from these was used to stabilize the slopes around buildings and pathways leading to it. Now most of the land around guest area is completely planted with the grass. The process is still on.

Zero risk slope farming.

Lesson from Nilgiris

30 years back when I visited Ooty, part of Nilgiris, an erstwhile summer headquarters of south India during colonial era, It was green with vegetation, colourful with flowers, serene and cool. It was a real escape from the tropical grayness of the plains. The moment you cross the 9th hairpin bent a vibrant



A view of the land in Blackberry Estate before planting vetiver grass

feeling of freshness infiltrate to the visitor's veins. A visitor now will definitely be sorry for the state of this pearl of hill stations. Hectic tourism activities and ruthless agriculture has already spoiled the land and environment. The same fate will follow to Munnar, which is just the other side of Sahya Ranges if preventive steps are not taken. That is what exactly taking place in Blackberry Estate.

It is not practical to say that agriculture and tourism must be banned from the area. What we can do is to

minimize the aftereffects of human activities. We had to find out a viable method to prevent soil erosion which is the main threat faced by the valley. Munnar being an area which helps stabilize the eco-equilibrium of a wide area called central Kerala, the health of the valley is crucial to the very survival of the State.



Terrace being developed

We planted vetiver in the slopes at a vertical distance of about 2 metres and within an year, hedges were formed. Now these hedges will stop soil getting washed away during rain or irrigation. Boulders embedded in the soil were removed and terrace formed. Now this area of about 2 acres is ready for planting vegetables.



Seasonal crops like cabbage and carrot were planted during October, 2010. Some area was dedicated for strawberries. Leaves of vetiver was periodically cut and used as mulch in the earth. This reduces water requirement in addition to help conditioning of soil. Seeing the

photographs, Mr Grimshaw the great Guru of Vetiver opined that the success of organic method of strawberry cultivation was due to the mulching with leaves of vetiver. According to him, vetiver leaves can prevent several damaging caterpillars and other pests. January onwards we are getting very good yield. About 12% of the fruit and vegetable requirement of is met with our own organic farm.



Dissemination of VS Technology.

The knowledge about vetiver came to us as a coincidence. We all are convinced that the knowledge has helped us immensely without which we never would have succeeded in taming the property and conducting sustainable agricultural activities . Therefore the company took a policy decision to spread the message among masses. Following course of action was planned.

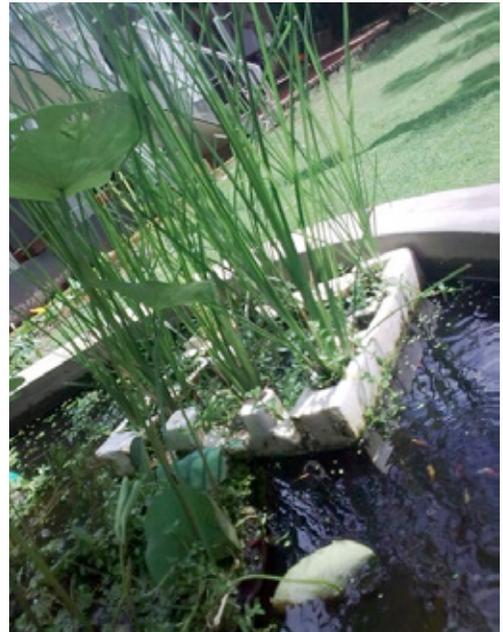
Pathway development in slopes. Beautifies while stabilizing the terrain.



1. Help organize an Indian chapter of Vetiver Network International
2. Conduct research on Vetiver System
3. Show-case various applications of Vetiver
4. Disseminate the knowledge through our guests from different parts of the world so that information is spread in a wide geographic area.
5. Introduce the plant and its application to entrepreneurs, planters and environmentalists.
6. Train workers on Vetiver System applications.

India Vetiver Network

An international Convention on vetiver was conducted with the financial help of Tata Coffee and several committed environmentalists and scientists in which several papers on applications of the grass was presented by experts from different countries of the world. An Indian chapter of International Vetiver Network was the net result of the convention. A NGO namely India Vetiver Network was registered as a trust of which our Executive Director, Mr. K.A.Abdul Samad is the treasurer. The NGO with its office in Trichur is dedicated to help popularize Vetiver System among general public and decision makers.



Research

Comparative study on ability of different ecotypes of

Vetiver grass as a float

vetiver is being conducted at Blackberry Hills. We have concluded that ecotypes, VS 01 and VS 06 are the most suitable for stabilizing

Peaceful co existence. Mint plants in a vetier float

Slopes. Zero Risk Slope Farming is a method developed by Blackberry Hills which can be safely introduced in terrains like Munnar. At present we are concentrating on a method to fix pipelines



in slopes organically using vetiver without the use of concrete or steel.

Showcasing Vetiver System (VS)

Blackberry Estate is perhaps the only place in India which has showcased different applications of vetiver such as: a) Zero-Risk Slope Farming b) Terrain Stabilization c) Affluent treatment d). Pipeline fixing. This facility is available to all our guests. All

local Panchayat members and other enthusiasts are being invited to the property periodically for a field demonstration as a part of knowledge dissemination.

Introducing Vetiver Technology to decision makers from around the world.

Blackberry Hills now hosts guests from all over the world. They are from different walks of life but all have a positive enthusiasm for nature and ecology. For the last six years we have been introducing Vetiver System to all of them. Most of them are given away with few tillers and study materials. As such our work has resulted availability of the plant in very wide geographical area along with the knowledge of VS.



Introducing the Plant and its applications

We have been continuously inviting entrepreneurs' planters and environmentalists to introduce the grass and its different applications. This has resulted in spreading the message in the locality and in the state as a whole. This process also has helped the India Vetiver Network to locate dedicated volunteers in the process of spreading the Vetiver Technology. Service of a dedicated naturist is available at the property for the purpose.

Training of Farmhands

Permanent workers of Blackberry Estate and the resort are trained in different aspects of planting vetiver for various applications. We also train temporary farmhands in Vetiver Technology. Within 6 months of joining Blackberry Estate, as a paid worker, they get training in collection of planting materials, packing, replanting the same for different purposes etc. They are encouraged to join other properties or estates for execution of projects using vetiver. As such we have developed about 40 farm hands who presently are employed in different projects within the last 4 years. These people presently employed in different geographical area of the state would have developed minimum 200 farmhands by this time which would continue to multiply.

Blackberry Hills Mountain EcoLodges or VETIVER LODGE

Mr. Paul Turong, one of world leader of Vetiver Movement visited Blackberry Estate during 2006 who was surprised to find the works done with vetiver. He complimented the project by publishing what he saw in the net with the above name. His presentation is still available on search which stands as a proof of our dedicated work. Since the last 4 years, we have further developed and widened the area of operation.

Indiavetivernetwork.ning.com

The above site was initiated by our Executive Director, Mr. Abdul Samad as a platform for the friends of vetiver. This has helped many to find answers to their soil erosion/stabilization problems. People associated with the site also has come together in strengthening India Vetiver Network. Now since India Vetiver Network has decided to launch its own site, www.vetiver.in, it is seriously considered to abandon the above site.



*Hut thatched with
leaves of vetiver grass*