

REPORT ON THE VETIVER ACTIVITIES IN KENYA FUNDED BY THE VETIVER NETWORK

The vetiver activities funded by The Vetiver Network started in June 2006 immediately after receiving the grant. The main aim of this project was to introduce the Vetiver grass to farmers in Nyanza, Rift Valley and Coast provinces of Kenya, to demonstrate its effectiveness in soil erosion control, and evaluate its suitability and reliability as a source of fodder for livestock. Soil erosion, and inadequate forage and fodder supply, are common problems in those areas that were targeted. In addition there was also a long term aim which was to determine the socio-economic impact of the Vetiver system on the community living in those areas.

The activities so far carried out involves the multiplication and introduction of Vetiver grass to farmers in Nyanza, Rift Valley and Coast provinces through pilot studies involving nine contact farmers, three in each province (Table 1). The farmers were selected through consultation with Agricultural extension staff. Various forums and media were used to inform farmers about the Vetiver system. These will include use of public barazas (meetings), farmers training centres, posters, video shows and books. During the recruitment process I taught the farmer the importance of Vetiver grass and the best way to propagate the grass. I also made copies of the book “Vetiver Grass- The Green Hedge Against Erosion” and videos tapes and VCDs which I distributed to the farmers and the Agricultural extension workers who were assisting me with the recruitment of the farmers.

Soil erosion control effectiveness is yet to be done towards the end of this year when the grass strips are fully developed. Apart from the farmers in Coast province who were able to source the vetiver planting materials from within their local areas, the remaining six farmers in Nyanza and Rift Valley provinces were each supplied with 300 seedlings (slips propagated in polythene sleeves). All the farmers have also availed land where they will be bulking the grass once the seedlings they have been provided with are established. From the outcome of these demonstrations it is expected that other farmers will be encourage to adopt the technology.

Table 1: Farmers selected to participate in the project

Nyanza Province	Location
1. Farmer: Joel O. Olango	Site: Lower Nyakach Elv. 1,207m ASL S 00°17.350’ E034 59.924’
2.Farmer: Paul Omondi	Site: Nyando division Elv. 1156m ASL S 00 ° 09.801’ E 034 ° 55.447’
3. Farmer: Aggrey W. Ondiek	Site: Ugunja division

	Elv. 1,284m ASL S 00° 09.319' E 034° 24.319'
<u>Rift Valley Province</u>	Loction
1. Farmer: George O. Akuom	Site: Njoro division Elv. 2217m ASL S 00° 21.870' E 35° 56.852'
2. Farmer A. Cheserek	Site Kiamunyi Elv. 1947 m ASL S 00° 16.271' E 036° 56.852'
3. David Kamau's farm	Elv. 2660 m ASL S 00° 36.145' E 036° 00.602'
<u>Coast Province</u>	
1. Farmer: Steven Mwanjala	Site: Sagalla Elv. 1,086m ASL S 03° 29.707' E 038° 34.949'
2. Farmer: Joseph Mwanganda	Site : Sagalla Elv. 1,111m ASL S 03° 29.672' E 038° 34.693'
3. Farmer: Anthony Nyatta	Site: Sagalla Elv. 1,092m ASL S 03° 30.212' E 038° 34.590'

Apart from the nine farmers involved in the project I was able to establish or identify vetiver in the following locations:

Table 2: Sites with vetiver grass but not part of the project

Nebo Farm Elv.1282 m ASL S 03° 30.131' E 038° 35.276'	Musau Polytechnic Vetiver Nursery Elv. 677 m ASL S 03° 25.014' E 038° 24.885'
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Taita Taveta Agricultural Training Center (TATC) Elv. 1588m ASL S.03 ° 26.031’ E 038 ° 20.603’	Gimba, Voi Location Elv. 587 m ASL S 03 ° 26.416’ E 038 ° 32.974’
Coast Institute of Technology (CIT) Vetiver Nursery Elv. 552 m ASL S 03 ° 23.014’ E 038 ° 34.931’	Esau Mwanganda’s farm Elv 1168 m ASL S 03 ° 30.14’ E 038 ° 43.993’

Nutrient analysis was done on vetiver samples from Rift Valley province and the following results were obtained:

Table3: Vetiver nutrient analysis

Sample	M%	DM%	ASH%	CP%	CF%	EE%	NDF%	ADF%
Vetiver grass	13.33	86.63	6.45	2.77	32.75	12.74	52.18	45.19

The analyses were done on six month old vetiver grass and expressed on DM basis. Other details and given on the attached certificate of analysis.

Expenditure

So far US\$ 4,556 has been spent on the project and the breakdown is given in table 4 below:

Table 4: Expenditure upto June 30th

	Amount
1. Equipment	US\$
GPS - Global Positioning System 1pc	500
Tape measure 2pcs @ \$10 each	20
Digital camera 1pc	500
Subtotal	1,020
2. Expendable supplies	
Flash disks 1units @ \$ 60 each	60
CDs 2 pkts @ \$ 8 each	16
Laboratory analysis	300
Planting material (Vetiver grass slips)	1,000
Subtotal	1,376
3. Literature, Documentation, information	
Preparation and distribution/display of Posters, videos, Photocopying and Secretarial services	300

Training expenses	500
Subtotal	800
4. Travelling and Subsistence	
Travelling and subsistence	1,360
GRAND TOTAL	4,556

Conclusion

The project so far is proceeding on quite well and by the end of the year it is expected that all the farmers will be able to start bulking. It will also be possible at this stage to observe the effectiveness of the grass barriers established. Some of the problems encountered were termite damage and grazing of the grass by livestock in some farms. Once the technology takes root in the three provinces then it will be necessary to spread it to other parts of the country. There will therefore be need for funds in order to achieve the remaining objectives and to upscale the project.

Appendices



Copies of Vetiver grass book, both English and Swahili versions, and the video which were made and distributed to the farmers and the agricultural extension officers



One of the training sessions that I conducted in Voi, coast province. I am seated on the right while one of the Agricultural Extension officers is addressing the farmer



Mr Anthony Nyatta addressing farmers at a field day held at the Taita Agricultural Training Centre (TATC)



Vetiver grass nursery at Njoro. The chance



Vetiver grass in Nyando division in January 2007. This is Mr Paul Omondi's farm



Vetiver grass in Mr Aggrey Ondieks farm in Nyanza province. Photo taken in June 2007



Vetiver Grass in Mr George Akuom's farm. Photo taken in April 2007



Vetiver in Mr Joel Olango's farm. Photo taken in June 2007



Vetiver grass planted in Mr David Kamau's farm in June 2007. This is a farm in Rift Valley where I was able to set up a trial to compare the performance of vetiver and napier grass.



Vetiver grass in Mr Aggrey Ondiek's farm attached by termites. I



Some of the Vetiver grass in Mr Paul Omondi's farm that had been grazed on by livestock. The fence that had been constructed around the plot was washed away by the floods of river Nyando.

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**OFFICE OF THE CHAIRMAN
DEPARTMENT OF ANIMAL SCIENCES**

ANSCS/71/43

12th January 2007

Dr. B. O. Bebe,
Department of Animal Sciences,
Egerton University,
P. O. Box 536,
20107 Njoro

Dear Dr. Bebe,

RE: CERTIFICATE OF ANALYSES

This is to certify that your feed samples were analyzed in our Nutrition Laboratory. Below are the results of the analyses expressed on DM basis.


NAME OF SAMPLE	M%	DM%	ASH%	CP%	CF%	EE%	NDF%	ADP%
GRASS SAMPLS (RUN 1) 2006	13.33	86.63	89.02	2.77	32.75	12.74	52.18	45.19

6-45

Thank you.


Mr. M.K. Mutumba
Chief Technologist




Prof. A.K. Kahi (Dr. sc. agr.)
Chairman of Department

M, Moisture; DM, Dry Matter; CP, Crude Protein; CF, Crude Fibre; EE, Ether Exact; NDF, Neutral Detergent Fibre; ADP, Acid Detergent Fibre.