### THE SOUTH AFRICAN VETIVER NETWORK

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#### **Abstract**

This paper presents a personal and parochial view of the experiences of coordinating the South African Vetiver Network over the past three years, and it comments on some of the challenges that will be faced in the future. The financing of the coordination function is a perennial problem. It is suggested that, in order for networks to be sustainable, they should move away from a reliance on donor funding to a situation of "user pays" and of a commercial division of the network. Most effective influence from a network can be achieved (in developing countries) by target government agencies and parastatal bodies, local champions, mass circulation publications and NGOs. Despite the advent of the Internet, in developing countries, the medium for information transfer will remain hard-copy newsletters and the postal system. Technical research areas might include the development of cool temperature varieties and landfill site rehabilitation. However, the major research challenge in developing countries is the development of models for business development based on vetiver.

### Introduction

In November 1996 I was largely unaware of the existence of the "miracle grass", and soil and moisture conservation and land rehabilitation were of only peripheral interest. Then three men, Richard Grimshaw, Tony Tantum and Paul Truong, descended on me and turned my professional life upside down. In the first article of the first-ever South African Vetiver Network (SAVN) newsletter, I described vetiver as the "conservationists' *Cannabis*". Unlike Bill Clinton I inhaled deeply and, just over three years on, I am firmly hooked. Still wet behind the ears, here I am attending my first international conference on vetiver and looking forward to meeting similar junkies who have become email and vetiver soulmates. How far have I progressed into addiction? Even my prospective mother-in-law has been recruited into SAVN. How much further can one go?

What follows is largely from a personal and rather parochial view of coordinating SAVN for the past three years. The bias is African, particularly South African, and the focus is developing countries and the challenges we face as we enter the new millennium.

Coordinators of networks promoting vetiver grass technology (VGT) operate at numerous levels and scales, and in contrasting physical and socio-economic environments. The roles of David Jobson in White River covering Mpumalanga (a province in South Africa), myself in Pietermaritzburg covering Southern Africa, and Richard Grimshaw in Leesburg, Virginia, covering the world, are fundamentally different. Yet we all face similar challenges:

- How do we secure funds to sustain our networks?
- Who do we target with support and promotion for maximum leverage?
- Where and how do we source relevant expertise and information for particular applications?
- What research should the network be promoting?
- Where do we find other champions to spread the load?
- How do we counter resistance to the technology?
- What is the most effective way of disseminating information on vetiver?
- To what extent do we involve ourselves in works projects and propagation?

Numerous other questions also pass through all our minds. Obviously, in many cases, we will have different answers depending on where we find ourselves. Different circumstances demand different solutions. This paper does not attempt to dictate what the various solutions to particular challenges might be. Instead, it simply puts forward a number of ideas on how some key challenges might be approached.

## Sustaining a Network - Where Do We Find the Money?

The perennial problem – how do we pay the bills? In the past numerous networks, including SAVN, have relied on donations and grants from international funding agents and large private corporations. The fortunes of the networks were dictated by corporate sector and international agency policy shifts – this year soil conservation might be a priority so money for vetiver rolls in; next year poverty alleviation is the priority so the money supply dries up. Clearly, the lack of consistency and control rendered this funding source unsustainable. The challenge here for networks is to move away from donation-based funding to investment-based funding – investment by those who will see either direct or indirect financial returns, or some other form of return for what they are investing. This is going to demand a fundamental change in the way we conceptualize and operate our networks.

For individuals and organizations to invest, they are going to want to see a service-based network – if Anglo American Corp is paying a membership subscription, its mine-based environmental managers should have the latest vetiver rehabilitation technology or advice at their fingertips. Information dissemination, as an example, will no longer be based only on what we as coordinators think is important but also on what the market regards as important. A lot of good can come out of such a shift. Network members are likely to be drawn closer. The network will no longer be some distant "nice-tohave" free service. Instead it will be close at hand and the vested interest in its survival will be strengthened. Also, if a service is paid for, its perceived value increases. This is all very well for Anglo American Corp and other corporate giants who can splash out a tiny fraction of a % of their turnover on a vetiver network subscription. But what about Siphiwe Zondi of Biyela, central Zululand, who is unemployed, who obtains occasional income from sales of Cannabis, and who uses vetiver hedging for contouring and to hide his illicit crop from prying eyes? How is he supposed to pay - the odd parcel of pot to the coordinator? Clearly, we have to look to other mechanisms and some form of cross-subsidization has to come into play. A solution we are developing is to approach ten to twenty large mining and civil construction firms, commercial rehabilitation companies, government departments and parastatal bodies which have a direct interest in vetiver to become core corporate investors in the network. Conventional network members will pay a nominal fee and those who cannot pay, predominantly the rural poor, will receive subsidized (free) membership. This form of investment will be linked implicitly to the level of service – through their operational divisions, core corporate investors are likely to demand greater services, normal members generally only want to be kept informed, and the rural poor only have access to certain network services.

Another way of sustaining a network financially is by developing a commercial division that effectively subsidizes the network. There are definite opportunities in this direction but there are also problems. Let us use the institute and SAVN as a particular example. We field numerous requests from contractors requiring vetiver stock or technical services. One option is to levy a commission on the sales we facilitate. This has potential but is likely to be an administrative nightmare. It also increases the price of stock, something we would prefer to avoid. Another option is to supply stock or services directly ourselves. With our agricultural training farm that contains a vetiver nursery and with the expertise that exists within the institute, we have the capacity to do this. In this way we would certainly maximize the amount that could be ploughed back into the network. However, as operators of the network, this places us at an immediate competitive advantage and I foresee conventional commercial operators crying foul.

# **Targets**

Who do we target our promotion and support at to obtain maximum leverage? Again, it depends on what level the network is operating at. However, here are a few ideas. When operating a national or regional network there are four specific areas at which promotion and support could be directed:

# Provincial and Regional Government Departments/Parastatal Bodies

In most developing countries the agent of service delivery is regularly a government department or a parastatal body. In South Africa much of agricultural extension is within national and provincial

agricultural departments. These departments also contract in consultants, private-sector agencies and NGOs to assist in delivery. If these departments are familiar with and supportive of VGT, they will write the various applications into project briefs. This forces their clients and contractors to make use of the technology. A parastatal body such as Umgeni Water (bulk water infrastructure and supply) is a specific example of where an organization that is familiar and supportive has written the use of VGT into the technical briefs of numerous works projects. Umgeni Water has actually gone a step further by setting up a nursery to supply stock to its external contractors. With encouragement, those organizations that regularly have large civil construction projects can combine entrepreneurial development options using vetiver with large-scale rehabilitation and stabilization operations. These organizations generally know at least two years in advance where large works projects will take place. They can identify local entrepreneurs, support the establishment of nurseries and, when the rehabilitation takes place, can purchase the locally available vetiver stock – both sides benefit.

## **Local Champions**

Coordinators of networks rarely have the time or resources to engage in vetiver propagation and works projects directly, or to network at the very local level. In fact, this is often counterproductive as the effort could be better spent on more strategic leverage. We need to rely on local individuals and organizations to do this. These local champions require continual and proactive nurturing, support and encouragement so as to lever maximum activity at a local level. Where do we find these champions and what are we looking for in a champion? Beyond an obvious interest in vetiver, ideally we need to find individuals who are located in an organization with a natural resource or agricultural focus. The day-to-day activities of the individual should regularly bring him or her into contact with activities and individuals with interests in or need for rehabilitation and stabilization works. He or she should preferably be local and settled rather than an external temporary staff member. Individuals from development, conservation and agricultural NGOs make ideal candidates. They usually have extensive networks ranging from government through the private sector to rural communities. They are well placed to lever funds, and they can generally operate more freely than individuals located in government or the private sector.

#### **Mass Circulation Publications**

The mining, civil construction, rural development, conservation and agricultural sectors all have widely circulated technical and non-technical publications and they are generally looking for pertinent articles. Articles specifically designed for these sectors can have a considerable positive impact on VGT use.

## **NGOs**

In less developed countries, especially those where government's ability to deliver is limited, the responsibility often rests with a variety of non-governmental organizations. In South Africa, until recently, small-scale farmers and rural residents generally knew more about vetiver than the other sectors. This was because NGOs such as Eco-Link and The Valley Trust and the institute operating in the rural development, conservation and agricultural sectors had actively championed it. These organizations are usually very effective in accessing communities and introducing new technologies as part of their operational activities.

### **Information Dissemination**

With the advent of electronic networking and the move to web-based publications, access to and dissemination of information on vetiver has become far more efficient. Information is at one's fingertips, world experts are an email message away and, in the case of our most accommodating vetiver experts, responses are often immediate. However, in developing countries the vast majority of people who could or do obtain benefits from network membership do not have access to telephonic

communication, let alone the Internet. The challenge in the new millennium is the effective dissemination of information on vetiver in an accessible format to these members. Conventional postage of newsletters and other information such as simple guidelines and fact sheets must remain at the core of network activities.

#### Research

There exists a superb foundation of research for vetiver technology. Much of that research is readily accessible. In developing countries the challenge is not to conduct technical research but rather to use existing technical research to inform and strengthen our methods of application and to increase geographical areas for application. With this in mind two technical research efforts that might have merit are as follows:

- To determine if any existing cultivars perform better than others in the cooler high-altitude environments. Alternately, although I am personally opposed to genetic engineering, there would be considerable merit in creating a genetically modified variety that performs in more temperate climates. I must admit that the vision of vetiver hedgerows crisscrossing the hills and dales of Ireland or Wales appears a little perverse. However, there are numerous sites in cooler high-altitude locations of developing countries where rehabilitation would benefit considerably from vetiver applications.
- To determine more precisely the impact vetiver has when used in landfill site rehabilitation. We have seen how the flow of leachate from these sites is curtailed when vetiver is planted but what is happening to the toxic substances? Are they being retained onsite or is vetiver effectively breaking them down and converting them into something more benign?

For me the main research challenge for developing countries is in the realm of business and entrepreneurial development. Unemployment and a low skill base plague Southern Africa. It is also plagued by severe land degradation, largely as a consequence of rural poverty. We need to research business development that provides entrepreneurial opportunities and income for the rural poor and at the same time contributes to improved caring for the natural resource base. Vetiver is an ideal agent that can contribute to this – the technology is simple, markets exist, and the natural-resource benefits have been unequivocally demonstrated. We need to analyse the entire production system from propagation through to sales and marketing, identify and find solutions to various constraints and pitfalls, and demonstrate success through pilot projects. The institute will be engaging this as an initiative over the next two years.

### Conclusion

Despite all the challenges we face, network coordinators can take heart from the fact that we are promoting and supporting an invaluable technology with future uses that we have yet to dream about. I predict that, as the ethic of natural resource custodianship evolves, so will the demand for our services increase and, with this demand, so will the resources necessary to sustain our networks role. I don't think I am out of a job just yet!