THE GLOBAL IMPACT OF VETIVER SYSTEMS

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How does one measure the global impact of Vetiver Systems (VS)? International donor agencies go to great lengths and cost to evaluate the impact of their development programs. TVN does not have this luxury; thus it is difficult for TVN to monitor its impact. However we are able to make an assessment of VS progress since 1986, the starting year for the revival of the technology:

In 1986 the technology was introduced to India, in the year 2000 some 138 countries know about the technology and more than 100 are using it in one form or other;

In 1986 there were no vetiver networks, in 2000 there are at least 14 known networks;

Since 1989 TVN has produced 17 formal newsletters with an issue of about 3,000 per newsletters;

The first newsletter had about five pages; the last one, # 20, had 70 pages -– mostly technical information coming from the field. Other networks have produced newsletters on a biannual basis – LAVN, MVN, SAVN, PRVN, WAVN, VETINETPHIL and CVN have all produced newsletters regularly;

Over 100,000 vetiver handbooks have been distributed since 1987;

TVN's homepage that was established in 1996 has received about 17,000 hits;

Over 800 NGO's are using the technology;

Some 800 government agents are using the technology;

About 1000 research stations/agencies receive the vetiver newsletter, many of them carry out vetiver research;

In Ethiopia we are told that half a million farmers know about the technology;

In Malawi it is government policy to promote VS;

In 1986 VS was solely applied as an erosion control measure; in 2000 it was used for highway stabilization, mine land rehabilitation, river, canal and drainage bank stabilization, sea shore stabilization, wind breaks, pollution control mitigation associated with municipal trash dumps, and for housing construction site stabilization;

In 1986 few engineers knew anything about vetiver grass, today many do, and for example in 1999 the Madagascar Society of Engineers formally recognized VS as an important technology for road stabilization purposes;

In 1986 VS was associated only with government projects today more than 800 commercial and private individuals receive the Vetiver Newsletter. There is an increasing involvement of the private sector in the establishment of VS enterprises that serve the engineering sector, good examples of this can be found in Malaysia, Thailand, El Salvador, South Africa, Philippines, and China;

VS has become a frequent component in bilateral funded projects in Ethiopia, Ghana, Madagascar, Malawi, Tanzania, Zimbabwe, China, India, Sri Lanka, Papua New Guinea Philippines, Indonesia, Honduras, Panama, Costa Rica to name but a few;

Apart from numerous site oriented workshops there have been a number of international conferences devoted to VS, and most other conferences that to soil erosion control and biological engineering include papers on VS.

The Vetiver network is continually receiving letters and other communications from persons in most countries in the tropics and semi tropics requesting information about the technology. We receive feedback from unlikely places which suggests that the technology is now becoming quite well known and that there is a lot more going on with VS than we really know. When the vetiver initiative was started most scientists had either had never heard of the technology or thought that it could only be confined to the low altitude wet tropics - the technology has indeed come a long way.

NETWORKING – A MEANS FOR THE DISSEMINATION OF TECHNOLOGY

The Vetiver Network (TVN) was one of the early organizations to network a single technology. Subsequently other vetiver networks were formed in association with TVN. Together the networking process has been successful, and it is worthwhile setting out some of the reasons for this success:

The networks focus on VS and not on other comparable technologies (although it acknowledges that other technologies may be effectively used in conjunction with VS or as stand alone technologies). One of the failures of many technology initiatives and development programs is that sometimes too many options are introduced that often prove over complicated both as a message and for the messenger. Lower level extension workers often feel that the delivery of one or two good messages will produce better results than multiple messages.

Further more VS is an exceptionally good technology that is superior to most other comparable ones – feedback from users confirm this fact. Some bilateral donors feel that beneficiaries need to have many options to choose from. This view is only acceptable if the intended beneficiary knows what the options are. Fifteen years ago hardly any one knew about VS, thus there was a need for a single technology approach in order to disseminate the VS technical message.

The message is technically simple, low cost and effective, when applied correctly. VS is really a very simple technology to apply and good demonstrations quickly convince potential users. "Seeing is believing" is an important aspect of passing the message on to new users. One user wrote to TVN "we read, we did, and it worked" - what better accolade than this!-

The technology requires a much lower labor input than traditionally engineered systems, and once established needs little maintenance. On average a person can construct 15 meters of traditional terrace a day, compared to 200 m of VS hedgerows. This means that a ha of land can be protected in two or three days, compared to 40 days for terracing, and therefore it is an attractive technology to resource poor farmers;

VS is gender positive. For example, Ethiopian women like the technology as it is not as hard work as terracing, and they see plenty of useful social bi-products from the grass including thatch, weaving materials, medicinal supplies, mattress stuffing material, snake excluder, privacy hedges, and a host of other uses. Women in the Philippines like the technology as they can develop mini nurseries to produce containerized vetiver plants to sell to the commercial sector for highway stabilization purposes. They call it "cash grass".

VS is unique in that vetiver grass can be applied over a wide range of ecological conditions (hence a basis for wide adoption), and many environmental and economic uses - the two often combined. It is difficult for most people to believe that the grass will grow over a wide range of extreme conditions. Thus one species will do the job of many. Once planners and users are convinced of this, and promote it as such, the technology adoption accelerates rapidly;

The end user comes first. This is a basic principle of TVN. Users are more important than government officials and scientists. TVN recognizes that the latter are useful, but we do not forget that it was, in the first place, the users who developed the technology; and it is the user who comes up with many of its refinements;

The majority of information received is immediately fed back to users, and is published in the newsletter and on TVN's website. There are no delays;

There are no formal peer reviewers - the end user is the peer reviewer - he/she either uses the information or rejects it. . So long as material received by TVN is readable and relevant we will publish it. There are no peer reviewers to reject the material as unworthy of publication, or to reject the material because it conflicts with their own agendas. There are no supervisors who want authorship in return for publication;

Incentives (awards) are provided to encourage active participation. The awards program has been very successful, not only does it encourage research but it also acknowledges many "small" persons in the vetiver system that work hard with little recognition. A vetiver award is often a coveted prize, even if it is just a certificate (in the future if TVN has limited funds, certificates may be the only way we can recognize worthy contributions to the furthering VS.);

Most vetiver researchers and users have been generous in sharing their information; because of the open approach taken by TVN, those involved with vetiver have been keen to provide feedback. This doesn't mean that we get all the feedback that we would like, we would like a lot more from those that receive but do not give!

In most countries there are committed individuals who make great efforts to disseminate information on VS, organize training etc. There are perhaps three dozen individuals around the world who have really made a difference to "moving the technology". Amongst them and foremost is His Majesty the King of Thailand. Others include: Ed Balbarino and Noah Manarang of the Philippines, Liyu Xu and Xia Hanping of China, Govind Bharad of India, P.K.Yoon of Malaysia, Tony Tantum and Duncan Hay of South Africa, Paul Truong of Australia, Diti Hengchanovich and Narong Chomchalow of Thailand, Joan Miller and Jim Smyle of Costa Rica, Linus Folly of Ghana, John Greenfield and Don Miller of New Zealand, Criss Juliard, Mark Dafforn, Ken Crismier

and Noel Vietmeyer of the US, Alemu Mekonnen of Ethiopia, Ngwainmbi Simon of Cameroon, Glenn Allison and Paul Zuckerman of UK, Mike Pease of Portugal, Cornelis des Bouvries of the Netherlands, Stephen Carr of Malawi, and Jano Labat of Zimbabwe. These are but a few of the many active participants of TVN – they and others have all created change.

99% of the information that is networked is delivered at no cost to the recipient; and is delivered fast. Early in its operations TVN found that people either don't like paying for new information, or don't have the money, or can't get the foreign exchange even if they have the money. So we have a policy that it is better to get the information out at our cost rather than not at all, or in limited amounts. Occasionally we ask people to pay or make a donation. But I am convinced that our success is partly because we have delivered good information quickly and at no cost.

TVN has deliberately set a policy that encourages affiliated networks to take the lead at regional and national levels. Although TVN led in the beginning we have made great efforts to devolve responsibility and fund raising to local networks. We have provided up to US$ 30,000 – US$ 50,000 per network to assist networks get off to a reasonable start. Mostly the response has been good and the networks have done far more than we originally anticipated. TVN remains in the back ground as a feeder of information, and a linker of information and persons;

Networking vetiver technology appears to be self-sustaining. If TVN closed down we can be assured that VS's adoption would continue at an increased rate, particularly in those areas that are using it widely. This says much for the technology and for the way the technology has been disseminated. However there are still many countries and sectors that do not know much about vetiver. Thus we think it is important to keep TVN operating in some form or other.

The Internet homepage, CD-ROMs etc. are powerful tools in the dissemination effort. A picture can tell a thousand words. TVN has made a point of sending out videos and slides relating to the technology and its uses. Now that CD-ROMs are so cheap (US$ 1,500 per thousand CDs) it is possible to send out all we know about vetiver at a very low cost. The current CD that we give away includes all 20 newsletters, important vetiver papers and articles, the vetiver data base, five pictorial presentations, and the "Green" books in English, French and Spanish. The Internet also provides a very good information source about VS. TVN's home page, http://www.vetiver.org, with links to other vetiver network sites, contains all we know about VS (some 15 megabytes). More people are using it, and if only 20% actually do something with what they have learned then the return to the annual cost (about US$ 1000 per year) of running the homepage and the associated ftp site will indeed be high. As other web sites with similar interests are established and inter links are made between sites we can expect an acceleration of hits on our site;

Hard copy newsletters are an essential component in disseminating information to the majority of recipients. Unfortunately we cannot do without hard copy newsletters. Most of our participants do not have computers, and if they do, accessing the Internet can be expensive. TVN and local network newsletters are therefore essential. We find vetiver newsletters for sale, often in tattered condition, in remote book fairs in the heart of India! We find one newsletter is often circulated to 50 other readers – so hard copy is still a powerful tool;

Internet dissemination is a powerful information tool for NGOs and other agencies that are plugged in to the World Wide Web. Once these agencies have access to the information they disseminate to a wide audience of users. TVN's homepage has played a vital role in information dissemination, and will in the future become even more important as more users and potential users come "online". Other NGO's that, like TVN, have limited financial resources should find the Internet hugely useful for information transfer. Along with our homepage the use of email has greatly enhanced communications between the networks and between users. Network coordinators can become real communication facilitators if the system is used to its full capability; and

TVN itself is unencumbered by bureaucratic processes. TVN was fortunate to raise over half a million dollars, most of which was quickly disbursed, under simple agreements, to recipients (other vetiver networks and NGO's). Most grants were processed from start to delivery within six weeks. Much was done on trust, and most times the trust paid off in successful programs, the few times when it failed was so small that it made little difference to the overall outcome. The really successful grant support was to those organizations whose leader(s) were already fully committed to the technology and who had a real sense of commitment to their own people and to the environment. All were volunteers in the sense that they already had personal incomes (a salaried job, pension etc.). They took on VS because they believed in it.

CONCLUSIONS

What of the future? I see the future expansion of the technology coming from three directions:

The spontaneous establishment of new national and local vetiver networks and the expansion of existing networks without financial assistance of TVN. Hopefully governments and donor agencies, that might include international agencies and trade organizations such as Rotary and Lions' Clubs or such local equivalents, will provide assistance.

As government and other agencies, become more appreciative of the value of VS, they will include it in their technical strategies, and be more active in its promotion application. Agencies need to better appreciate the cross sector linkages that VS impacts on;

The expansion of private sector enterprises that are realizing the importance of the technology and the fact that it can be applied profitably. The private sector will actively market the technology, and thus will impact a whole string of enterprises from small plant material producers to landscapers and construction companies.

The dissemination of VS has undoubtedly been a successful initiative, and the original objectives have been exceeded by far. Rather than just being a carrier of words, the initiative has been a creator of actions. This process will continue, probably not with TVN in the prime spot, but rather through the actions of users and scientists working in better communications and harmony in the field. TVN's own future is, and has always been, rather fluid, we change course depending on the availability of funds and the need of users. If TVN does not receive any significant funding in the near future it will downsize its work to an information exchange based on the Internet. The latter is almost a costless exercise.

VS has proven a very successful technology because it is simple, low cost, and effective. It is also a very exciting technology because its use seems to be boundless, and it is therefore an exciting technology to use and experiment with. It is also a technology that is available to everybody without being tied up in bureaucratic practices. It is not a technology that is controlled by large consulting engineering firms, in fact it is quite the opposite -- we can mainly be free of costly consultants, protracted studies, and complex procurement and financing programs. In fact today its use would be more widely applied if other technologies, particularly "hard" engineering technologies, were less financially attractive to corrupt officials and profit optimizing entrepreneurs.

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