

**What did we accomplish during ICV-2?**

The Second International Conference on Vetiver organized by the Royal Development Projects Board and the Chaipattana Foundation and held in Cha-am, Thailand, 18-22 January 2000, was a grand success. A lot complimentary letters received by of us confirmed the point just mentioned. Our hard works rut into the preparations of this unique international conference in a relatively short time have really paid off. However, the success of any meeting cannot be judged only by the compliments with respects to the opening, reception, farewell, hospitality, etc. but by what each participant takes back after the meeting. "What did we really accomplish during ICV-2?"

It would be a bias on our part if we think the participants have benefited a great deal from the meeting. Perhaps a few excerpts from those who wrote to us about ICV-2 would be a fair indication of what we have achieved. According to Dick Grimshaw, the Coordinator of The Vetiver Network, "This conference has brought together vetiver users and promoters from 33 countries and has successfully demonstrated and confirmed that Vetiver Grass Technology (VGT) based on the Vetiver System (VS) is being adopted at accelerated rates for a wide range of environmental applications". Mark Saffron of the US National Academy of Science, put it as "Everyone left with a new infusion of knowledge and enthusiasm". James Smyle, Senior Natural Resources Specialist, Regional Unit for Technical Assistance, Costa Rica, is of opinion that "The overall organization and presentation of the conference, exhibition, technical tour and publication provided were very impressive and reflected an incredible amount of hard work done by the organizing committee. I am sure that the promotion effect of the excellent conference, as well as the information which is now disseminated from it will really pay off in terms of seeing new and greater impacts of the VGT system on the ground. I personally felt both re-energized and better educated on the state-of-the-art of VGT. I promise you I will put both of those to good use in the countries and projects where I am working". Lastly, "It is difficult for me to make particular reference to any specific part of the program without doing injustice to other subjects: all issues were highly relevant and indeed informative for me, undoubtedly also for other participants, something which is bound to of importance and beneficial for the continued work with vetiver, in Thailand as well as in other parts of the world" wrote Poul Richardt Jensen, Technical Advisor,

Executive Summary of ICV-2

The Sec-ond International Conference on Vetiver (ICV-2) was held in Cha-am, Phetchaburi Province during 18-22 January 2000 on the theme of "Vetiver and the Environment". It was organized by the office of the Royal Development Projects Board in cooperation with the Chaipattana Foundation, with full support of the Interim Committee of the ICV. Its objectives were to commemorate the auspicious occasion of His Majesty the King's Sixth Cycle Birthday Anniversary (5 December 1999) and to exchange knowledge, information as well as experiences on vetiver. The Conference was honored by the presence of Her Royal Highness Princess Maha Chakri Sirindhorn who graciously presided over the opening ceremony and attended the ICV-2.

There were altogether 30 participating countries with the total number of participants of about 400, one-fourth of which were international scientists. The program included Plenary Lectures, Panel Discussions, Concurrent Sessions, Poster Presentation, Exhibition, and Study Tours.

For the Plenary Lectures there were 10 topics, six of which were presented by the winners of the King of Thailand's Vetiver Awards, who received their awards from Her Royal Highness Princess Chulabhorn on 17 January 2000. The awards were given to the three most outstanding works for each of the two categories, viz. Vetiver research and dissemination of vetiver technology (see details in Vetiverim-11).

Besides the Plenary Lectures, there were four Panel Discussions under the following topics:

- ☞ Experience in Putting Together Country-Wide Vetiver Program: Policy Issues, Expectations and Results
- ☞ Vetiver and Natural Disaster
- ☞ Reports of Regional Networks
- ☞ Reports of National Networks

Three Concurrent Sessions under the following three topics were arranged:

*Group A:* Soil and Water Attributes – 17 papers

*Group B:* Basic Research and General Studies – 17 papers

*Group C:* Other Topics – 13 papers

There were also 48 poster presentations displaying technical works on vetiver by participants from various countries and were given to the three best posters along with one consolation prize; these are:

*First Prize:* "Effect of Gamma Radiation on Vetiver callus" by Asst. Prof. Malee Nanakorn et al., from the Department of Botany, Kasetsart University, Thailand;

*Second Prize:* “Study on Soil Microbial Biodiversity in Rhizosphere of Vetiver Grass in Degradating Soil” by Vanlada Sunanthapongsak et al., from the Land Development Department, Thailand ;

*Third Prize:* “Effects of Vesicular-Arbuscular Mycorrhiza and Phosphate Fertilizer on Phosphorus Uptake on Vetiver Using Nuclear Technique” by Assoc. Prof. Sombun Techapinyawat et al., from the Department of Botany, Kasetsart University, Thailand;

*Consolation Prize:* “Use of Vetiver for Soil and Water Conservation in Tea Lands in Upper Mahaweli Catchment, Sri Lanka” by S.M.B. Makadawar and H.M.C.A.B. Helarawa, Sri Lanka.

There was also an exhibition showing progress of vetiver works from 24 agencies in Thailand. The exhibition received great interest from the public with substantial visits by participants, students as well as the local people.

Moreover, the ICV-2 participants were taken on study tours to observe applications of vetiver at five sites in the area of Phetchavuri, Ratchaburi and Prachuap Khiri Khan Provinces. These five sites were:

- The Chaipantana-Mae Fah Luang Reforestation Project, Nong Phlap Subdistrict, Hua Hin District, Prachuap Khiri Khan Province;
- The Late Princess Mother’s Garden, Ban Ang Hin, Sam Phraya Subdistrict, Cha-am District, Phetchaburi Province;
- Huai Sai Royal Development Study Center, Sam Phraya Subdistrict, Cha-am District, Phetchaburi Province;
- The Lime/Guava Orchard of Mr. Songsak Kheokli, Ban Tha Marit, Klat Luang Subdistrict, Tha Yang District, Phetchaburi Province;
- The Khao Cha-ngum Rehabilitation Study Project, Khao Cha-ngum Subdistrict, Photharam District, Ratchaburi Province.

ICV-2 was a great success through excellent cooperation among many agencies including the government sector, the private sector as well as both Thai and international speakers. It has greatly benefited the vetiver circle in various ways, ranging from presentation of technical research works; exchange of knowledge and experiences; to introduction of new technology and ideas on vetiver utilization, especially in the conservation of soil, water and the environment. This thus leads to a better world, for example with respect to waste of refuse treatment. Additionally, there were some discussions about products made of vetiver leaves, especially its use as substitute material in the

industrial sector. This Conference gave an opportunity for representatives from different vetiver networks around the world to meet and foster bright and future collaboration. Moreover, the assembly also addressed the future directions for vetiver works which will help in determining the policy and planning for vetiver promotion, at both national and international levels.

During the Business Session, new set of Continuing Committee of the ICV was nominated. There was a proposal to hold ICV-3 in China in the year 2004 under the theme "Vetiver and Water". The theme was endorsed during the closing session of ICV-2.

The evaluation of ICV-2 assessed by requesting the participants to fill in the forms can be concluded as follows:

- For the public relations, the First and Second Announcements gave full details of the Conference to the participants, with very few improvements needed;
- For the technical aspect, a majority of the participants commented that the topics for the panel discussions, concurrent sessions and poster presentation as well as the method of the Conference provided extensive knowledge to the participants. Some rated all these satisfactory, while others, about 10% of the total forms submitted, suggested that improvements be made. For instance, each session was given a limited time, not enough for discussion; the sound system of the lecture rooms was not satisfactory; some lecturers were not fluent in English; the poster presentation room was too small and there was not enough time to visit the exhibition;
- For the technical tours, three fourths of the participants were satisfied and impressed with the five chosen sites and the organizational aspects of the tours. Besides, the presentations were well prepared. The participants were pleased to gain new experiences and observed different approaches to VGT;
- For general arrangements and facilitation, including the welcoming party, transportation, accommodation, and food during the Conference, the feedback was good. In conclusion, ICV-2 has been very successful and achieved all its intended goals. Compliments from various agencies, both national and international, were given to this Conference owing to an excellent cooperation among many parties concerned. From this great collaboration, it can be clearly seen that vetiver has a bright future and will continue to play a major role in soil, water and forest conservation towards sustainable development according to His Majesty the King's Initiative.

### Three More Technical Bulletins Published by PRVN

The Secretariat of the Pacific Rim Vetiver Network is proud to announce the publication of three new technical bulletins whose details are as follows:

◆ No. 1999/1: "Vetiver Handicraft in Thailand by the Department of Industrial Promotion of the Royal Thai Government", October 1999. It provides information on the utilization of vetiver leaves as raw material for making handicrafts. Of great benefit to the farmers who grow vetiver for soil and water conservation purposes, the bulletin can be used as a manual to produce handicraft since it describes preparatory steps in making handicrafts from vetiver leaves, from pre-harvest operation, through harvesting and post-harvest treatment of vetiver leaves, followed by a chapter on the making of handicrafts through direct utilization of vetiver leaves in making wicker works, and the production of basic units, braids and interlaces. Three other chapters describe the types of handicrafts which can be from vetiver leaves, socio-economic consideration, and vetiver handicraft contests and exhibitions. Of the 24 pages, A-4 size, 16 pages are in color showing steps in the making of handicrafts as the finished products of all kinds, including those which won the awards during the many contests organized by the Department of Industrial of Industrial Promotion during the past few years.

◆ No. 199/2: "Vetiver Grass Technology for Mine Rehabilitation" by Paul Truong, Principal Soil Conservationist and Leader in Bio-Engineering and Land Rehabilitation Group, Resource Sciences Centre, Queensland Department of Natural Resources, Brisbane, Australia, who has over 20 years of experience in the use of vegetation for erosion and sediment control, land stabilization and rehabilitation in tropical and subtropical Australia. In the last 10 years he concentrated on the application of the Vetiver Grass Technology (VGT) for the above purposes. His pioneering research and development on VGT have led to the extension of VGT beyond its original application in soil and water conservation on farmlands into the fields and mine rehabilitation. The bulletin, the second one contributed by the same author as the PRVN's Technical Bulletin, mainly dealt with the use of vetiver in rehabilitation mine waste, particularly contaminated tailings in Australia and South Africa, due to its wide range of tolerance to adverse conditions and heavy metal toxicity. Two chapters of the bulletin describe tolerance of vetiver to adverse soil conditions and to heavy metals. Two other chapters describe rehabilitation of mine tailings in Australia and South Africa. The author concludes that VGT is highly suitable for the rehabilitation of contaminated mine wastes and tailings, but the understanding of the chemical properties of the materials requiring rehabilitation is needed for

successful application of vetiver. It also exhibits four color pages in addition to eight pages of the text.

◆ No. 1999/3: "The use of Vetiver Grass System for Erosion Control and Slope Stabilization along the Yadana Gas Pipeline Right-of Way" by the Yadana Gas Pipeline Project of the Petroleum Authority of Thailand. It describes environmental problems created as a result of constructing Yadana gas pipeline passing through the critical areas of 50-km strip of forest with 20-m width, equivalent to 96 ha of the right-of-way area. Bare soil resulting from the construction was immediately exposed to erosion. Without any preventive measure, erosion rate may increase by 100 times. The Project has made effective use of Vetiver Grass System (VGS) in erosion control and slope stabilization along those critical areas. As soon as vetiver tillers were properly planted, the rows of vetiver grass immediately served to prevent erosion while other vegetation took some time to grow. The VGS enhanced and reinforced the physical erosion control structure constructed in area with high risks of erosion to eventually become natural permanent erosion control structure. The VGS also conserved soil moisture and thereby helped restore the growth and development of the transplanted trees to grow back to their original state or better in a period of three years onwards. It was concluded that when utilized in conjunction with physical structure, the VGS will play a significant role in erosion control and slope stabilization. When applied correctly, the VGS will provide the technique much needed to protect the environment for our future generations. The main chapters of this bulletin include the project description, consideration of alternate routes, environmental evaluation, mitigation measures establishment and utmost impact identifications, consideration of construction strategies and techniques, consideration of rehabilitation, formulation of combined strategy for implementation plan, implementation and evaluation, rehabilitation performance and further implementation in PTT's Reforestation Project. The 24-page text includes the Yadana Gas Pipeline Project.

All three bulletins have been distributed to every participant of the Second International Conference on Vetiver held in Cha-am, Phetchaburi, Thailand during 18-22 January 2000. For those who did not attend the conference and wish to have copies of these bulletins may write to the Secretariat indicating the number(s) you wish to have.

Call for papers: The Secretariat of the Pacific Rim Vetiver Network would like to invite vetiver scientists to submit their scientific papers to be published as technical bulletins of the PRVN. The length and style of the paper should conform with the ones previously issued. Bound Volume of Vetiverim and Subject Index

As a compliment of the Second International Conference on Vetiver (ICV-2) held in Cha-am, Phetchaburi, Thailand, 18-22 January 2000, the Office of the Royal Development Projects Boards, the Organizer of ICV-2, prepared a bound volume of back issues of the Vetiverim, from No. 1 to 11 (July 1997 to January 2000). To make the search for the subjects published in the 11 issues more convenient, a subject index has been prepared, together with the lists of meetings on vetiver, the vetiver networks, and the editorials. This 4-page index has also been printed separately and sent along with Vetiverim-11, January 2000, to those who did not attend ICV-2. It is hoped that the second bound volume of the Vetiverim (from No. 12 onwards) will be made available during the ICV-3 in China in 2004.

New TVN Committees

At a recent Board meeting of The Vetiver Network (TVN), a number of committees have been set up to undertake some tasks. Each committee will be under the direction and coordination of a TVN director. When the task is completed they will send TVN Coordinator their recommendations for action. The committees are as follows:

#### **1. Technical Specifications Committee**

This committee, which consists of Paul Truong (Coordinator), P.K.Yoon, Diti Hengchaovanbich, Liyu Xu, Duncan Hay, Alemu Mdkonnen, Criss juliard, Ed Balbarino, and and A l d o M i r a n d a , w i l l :

- Review current vetiver specifications (found on our homepage) and will under will under the all embracing descriptive name "Vetiver System" set out a series of sub systems such as Vetiver System for Erosion Control that will cover the whole range of vetiver applications known at t h i s t i m e .
- Ensure that for each description set out specifications to meet a minimum level of application quality that can be monitored. Note these are particularly important of reengineering applications. Specifications will include qualitative photos where possible.
- Develop a general description of the Vetiver System that we can Trade Mark to help m a i n t a i n l o n g t e r m s t a n d a r d s .

■ Consider that any other aspects not included above that may come up in the review.

## **2. Greenfield Book**

The committee, comprising John Greenfield (Coordinator), Michael Pease, Mark Dafforn, P.K. Yoon, Paul Truong, Liyu Su, Joan Miller, Ed Balabarino, Criss Juliard, and Noel Vietmeyer, will review and revise the first draft of a new comprehensive book on vetiver systems. The committee will bring it to a stage of publication standards.

## **3. Development of Vetiver Database Committee**

We have a tremendous amount of information on vetiver. This needs sorting out, abstracting, archiving and publishing. This same committee will also advise on what vetiver publications need reprinting, new CD ROMS and so on, and will help to locate funds for that work. The Committee will comprise: Jim Smyle (Coordinator). Shawki Barghouti, Joan Miller, Mark Dafforn, Mike Pease, and Poul Jensen.

## **4. Vetiver Dissemination Committee**

This committee will review past experiences relating to information dissemination, effectiveness of the public, NGO and private sectors and set out recommendations as to how we can accelerate information use, expand the involvement of the private sector and create greater government awareness of the value of the technology. The committee will comprise: Criss Juliard (Coordinator), Poul Jensen, Joan Miller, Jim Smyle, Aldo Miranda, Noah Manarang, Diti Hengchaovanich, Narong Chomchallow, and Duncan Hay.

## **5. Research Committee**

This committee will review past vetiver research work and the needs of the future in light of vetiver's wide range of application. An attempt should be made to prioritize an agenda, and give some indication as to what research agencies might undertake the work. The Committee will comprise: Mark Dafforn (Coordinator), P.K. Yoon, Paul Truong, Jim Smyle, Shawki Barghouti, Oscar Rodriguez, and Samran Sombatpanit. All Committees have the authority to co-opt additional members where necessary.

A budget of \$1000 per committee has been allocated by TVN to cover incidental expenses and for publishing a final report (all reports must be electronically produced, and all will be put on a CD-ROM). Coordinators will be reimbursed on presentation of their accounts.



*Letters from Indonesia*

*Reversing the Concept of Vetiver on Soil Erosion in Garut, West Java*

I would like to request your kind approval to be included my name in the contact list on your website :

Name: Ir. Indrawan Suparan MB, Technical & Management Consultant

Address: c/o Koperasi Akar Wangi 'Sumber Jaya Wangi' Jl. Kanduruan No. 632, Desa Lembang, Kecamatan Leles, Garut 44152, West Java, Indonesia

T e l . : 6 2 - 2 6 2 - 4 5 6 3 6 7 , 4 5 6 3 6 6

F a x . : 6 2 - 2 6 2 - 4 5 6 3 6 7

Attn. : Mr. Rusly, Head of Vetiver plant Cooperative

E - m a i l : < [isuparan@telkom.net](mailto:isuparan@telkom.net) >

I am now working as a full time consultant on management and technical issues on the cultivation of the vetiver plants in the cooperative's land (>175 ha) and plan to include the poor farmers on the land that has been badly eroded. We have had success on improving the member farmers' income from planting vetiver, by improving the quality and the selling channel of the vetiver oil. The cooperatives are fully supported by the (new and democratic) local government, and we plan to change the local rule of limiting vetiver cultivation area that has been enforced for several years, because of the false concept on effect of the vetiver plant on the soil erosion. The farmers have found already the ways to plant on critical slopes that catch and stabilize soil, and then they are able to plant other crops in between. I have compiled pictures on the activities for nearly one year (by then consultation for management issues to improve productivity), before I look for other institutions to help the farmers, and I found your site which is the most interesting.

We plan to cooperate with several Indonesian institutions that are active on the vetiver issue, since this grass can help increasing the farmers income as well as improving the soil. I think this approach will most readily accepted by the local people as well as the government. That is when I found a rather passive Indonesian community on the vetiver issue, and I plan to register a web site to attract more people (I have had my own personal site). I also wrote a short, popular report on vetiver for a local magazine (hopefully to be published before April), since I have some interesting papers and probably somebody else wants to know it also.

Thank you in advance for including my name on your list. If the list of the publication does not generate more interest within month, I will start my own personal vetiver network on a free web site, or pay myself a small amount for a virtual domain for it (cost approx. US\$ 200 annually – approx. equal to 4 kg of vetiver oil) which is also good for marketing the oil besides disseminating the general information to everybody that use internet (mostly young and energetic students and professionals).

Indrawan suparan

[lsuparan@telkom.net](mailto:lsuparan@telkom.net)

Your wish is my command! You are now placed in the mailing list of all our publications, including the Vetiverim from this issue onwards. Meanwhile, we would like to request you to kindly send us news or articles on vetiver from your cooperatives for possible inclusion in future issues of Vetiverim. More information about vetiver and PRVN can be obtained directly from your country coordinator who is Mr. Kuscahyo Budi Prayogo. Cooperation and Information Coordinator, Assessment institute for Agricultural Technology, Jakarta, Tel.: 924-965; Fax: 924-966; E-mail: < [aiatunr@semarang.wasantara.net.id](mailto:aiatunr@semarang.wasantara.net.id) > -Ed.

*V e t i v e r   f o r   t h e   E a s t   B a l i   P o v e r t y   P r o j e c t*

I am the Foudner/Vice Chairman and Executive Director of East Bali Poverty Project, a non-profit social foundation helping to improve the lives of malnourished and illiterate children in the poorest village in Bali, situated high up the eastern slopes of Mounts Agung and Abang. We are ordering vetiver grass from "Yayasan Tananua" in Flores to help reduce erosion on the steep mountain tracks and to enable us to introduce permaculture on their very steep farmland, where presently they can only grow cassava and corn. There are no rivers, nor do any of the 9,000+ villagers have a water supply. Hence we hope that the vetiver will help create terraces, and simultaneously, we hope to develop some plastic-lined ponds as rainwater catchment above their farmland to provide irrigation water after the next rainy season (usually starts in October and last until March / April).

I would be grateful for any advice to ensure we get optimum benefit from vetiver grass, and any contacts in Indonesia who may be able to give us practical help in the field. Also, I would very much appreciate any suggestions on fund-raising for such a project. Presently, we are only ordering a small quantity as a trial, and in view of the of our web site draft which should be up and running within 10 days on < [www.eastbalipovertyproject.org](http://www.eastbalipovertyproject.org) >.

David J.Booth

East Bali Poverty Project "Helping Poor Children"

Ekoturin Foundation

PO Box 3850, Denpasar

Bali, Indonesia

E-mail: [ekoturin@denpasar.wasantara.net.id](mailto:ekoturin@denpasar.wasantara.net.id)

Thanks for your e-mail and your trust in us. Using a combination of vetiver, permaculture, and other physical structures such as plastic-lined ponds, terraces, etc., sounds like you are on the right track. While vetiver has many characteristics which make it most suitable to be used for soil and water conservation, it is not a panacea as it also needs good care, especially during the initial stage. During the Second International Conference on Vetiver (ICV-2) recently held in Thailand, we have learned a lot about the 'dos' and the 'dons' of planting vetiver. One thing that I want to stress in the use of good planting material (i.e. the right ecotype), good planting method at the right time, and good management. For your information, we have arranged to send you two books on vetiver, namely "Vetiver Grass: A Thin Green Line against Erosion" and "Factual Tips about Vetiver". If you should need further advice, especially with respect to the suitable ecotype and its availability, and other documents, please let us know. Information on vetiver in Indonesia can be obtained from the National Coordinator (see address above). - Ed.