

THE HISTORY AND PROSPECT OF VETIVER DEVELOPMENT IN CHINA

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1. The initiation: VGT for erosion control and farmland protection

Introduced into China by Mr. Dick Grimshaw in 1988



First national vetiver workshop, ShaoWu, 1989



Main Topics of Shaowu Workshop:

- **Exchange planting and testing experiences;**
- **Introduce experience obtained from other countries;**
- **Discuss the prospects of vetiver development and suggestion for future applications in China;**
- **Visit testing plots and a vetiver nursery.**

Further tests for agriculture protection

- ❖ establishment and management of vetiver nurseries and vetiver hedges;**
- ❖ effect of environmental factors on vetiver growth;**
- ❖ effect of vetiver hedges on soil fertility, soil moisture, soil erosion control, and crop yield;**
- ❖ effect of fertilizer application on vetiver growth; and**
- ❖ comparison of vetiver with other grasses.**

International Vetiver Workshop in Fuzhou 1997



Aim of the Fuzhou workshop:

- 1. To sum up experience in the past 10 years and exchange ideas**
- 2. To disseminate vetiver grass technology as rapidly as possible**

Participants for Pingtan Island visiting demonstrations



During Fuzhou Workshop Mr. Diti Hengchaovanich from Thailand introduced VGT theory and showed successful experiences using it for engineering protection focusing in particular on highway embankments.

His presentation generated great interest among the Chinese participants.

2. Highway Protection: A New Milestone



International Conference, Nanchang, 1999

Significance of Nanchang Conference

- **First time to recommend VS to engineers rather than farmers. So, it exploited a new field for vetiver development.**
- **In the past almost all of the projects implemented in agriculture under governmental support. This time participants felt that VS could bring them fast and considerable profits, that would enable VS to move forward in the market.**
- **Private companies participated in the conference and then became the first group of private vetiver implementors .**
- **Now that VS could serve engineering in addition to agriculture, more people wished to enlarge the scope from engineering to other fields such as landfill protection, polluted water treatment, etc., so long as there was market.**

Fast development in highway protection

In the spring of 2000, VGT was applied in Zhejiang For highway protection by the first Highway Vetiver Company.

In October, first highway protection evaluation conference was organized and VGT was accepted by national highway experts.

3. Strategy for national vetiver development

3.1 Select a most promising subject:

- 1. We should search for all possible subjects and then select the most important one as a target during a certain period.**
- 2. The most important topic should have huge potential (huge market) for further development.**
- 3. Easy to be implemented, compared with other subjects.**
- 4. Once VGT was developed in this area it could extend easily to other related fields.**
- 5. Easily accepted by the various authorities.**

Selected highways as a breakthrough because:

- ❖ Highway construction had been very rapidly done throughout the country. There was high demand.**
- ❖ There were several types of roads and various administrative authorities for highways, i.e. the expressways, national highways, provincial highways, etc. There was very little relation between them. It meant that we could apply VGT on any highway type without consideration for the others. On the contrary, for railway construction there was rigid management. If one wished to plant vetiver they had to get approval from a higher authority.**

Then, VGT for railway protection

- ❑ In the spring of 2001, the first railway embankment protection was established**
- ❑ The First national Railway Vetiver Technology Identification and Evaluation Conference was organized in Nanjing October 2001.**
- ❑ The first vetiver railway company was registered in Nanjing**
- ❑ Later, the vetiver application for railway protection emerged in Jiangsu, Anhui, and Fujian Provinces**
- ❑ On January 22, 2002, vetiver grass was officially included in the National Railway Embankment Protection Regulation**

National Railway VGT Identification and Evaluation Conference, 2001



Schedule for fast development:

Successful Demonstrations

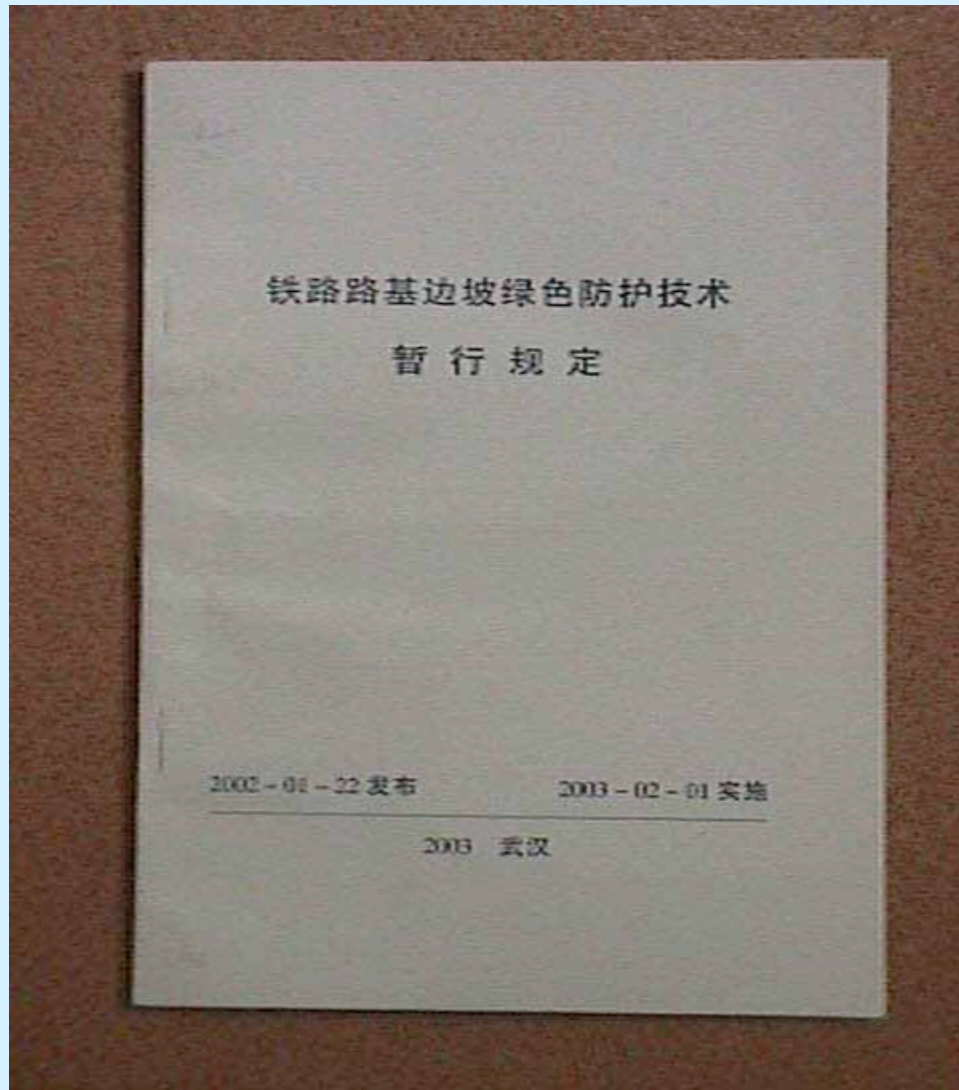
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Evaluation conferences



Fast dissemination

National Railway Regulation (2002)



**Erosion control &
Farmland Protection
(1988-)**

**Infrastructure/
environment
protection
(1999-)**

Highway/profit generating

Railway Industry

**Waterpower & Electric
Industry**

Mine tail

Landfill protection

Water treatment

**Vetiver development procedures in
China**

Vetiver for mine tail re-vegetation



3.2 Searching for the most potential people

There are thousands of organizations related to vetiver in China. All the possible organizations could be divided into four groups:

- research organizations**
- action research and extension organizations**
- education organizations and**
- administration organizations**

The collection and analysis by the most interested institutes and representatives became very important for the national vetiver development. The details were described for this in a separate paper.

3.3 Production and dissemination of multiple publications in large quantities

Once, most promising subject and most prospective vetiver users were found, multiple publications were produced and disseminated in large quantities:

- ❖ *Vetiver Newsletter*
- ❖ *Vetiver for Water and Soil Conservation* (FACT sheets)
- ❖ *Agroforestry Today* (a quarterly journal in Chinese)
- ❖ *Vetiver Research and Development* was a book published in 1998
- ❖ *Vetiver New Year's Greeting Cards*
- ❖ *Vetiver Grass: The Hedge against Erosion* in Chinese
- ❖ *Vetiver Grass for Slope Stabilization and Erosion Control* in Chinese
- ❖ *Vetiver System and Its Research and Applications in China*, a book in both Chinese and English
- ❖ *Chestnut Tree Cultivation with Vetiver Hedge Protection*
- ❖ *Tea Tree Cultivation with Vetiver Hedge Protection*
- ❖ *Mulberry Tree Cultivation with Vetiver Hedge Protection*

Large amount of training materials produced





Part of the publications we distributed

3.4 Organize numerous training courses

❖ Thousands of people received direct training

❖ Many received indirect training from reading training materials

Lecture on the use of vetiver for economic tree protection



Lecture presentation by vetiver exper



Wide distribution of vetiver printed materials to women



Hands on practical training for farmers in the Dabie Mountains



Vetiver protected tea tree cultivation training



3.5 Selflessness

Basic quality needed for vetiver networkers

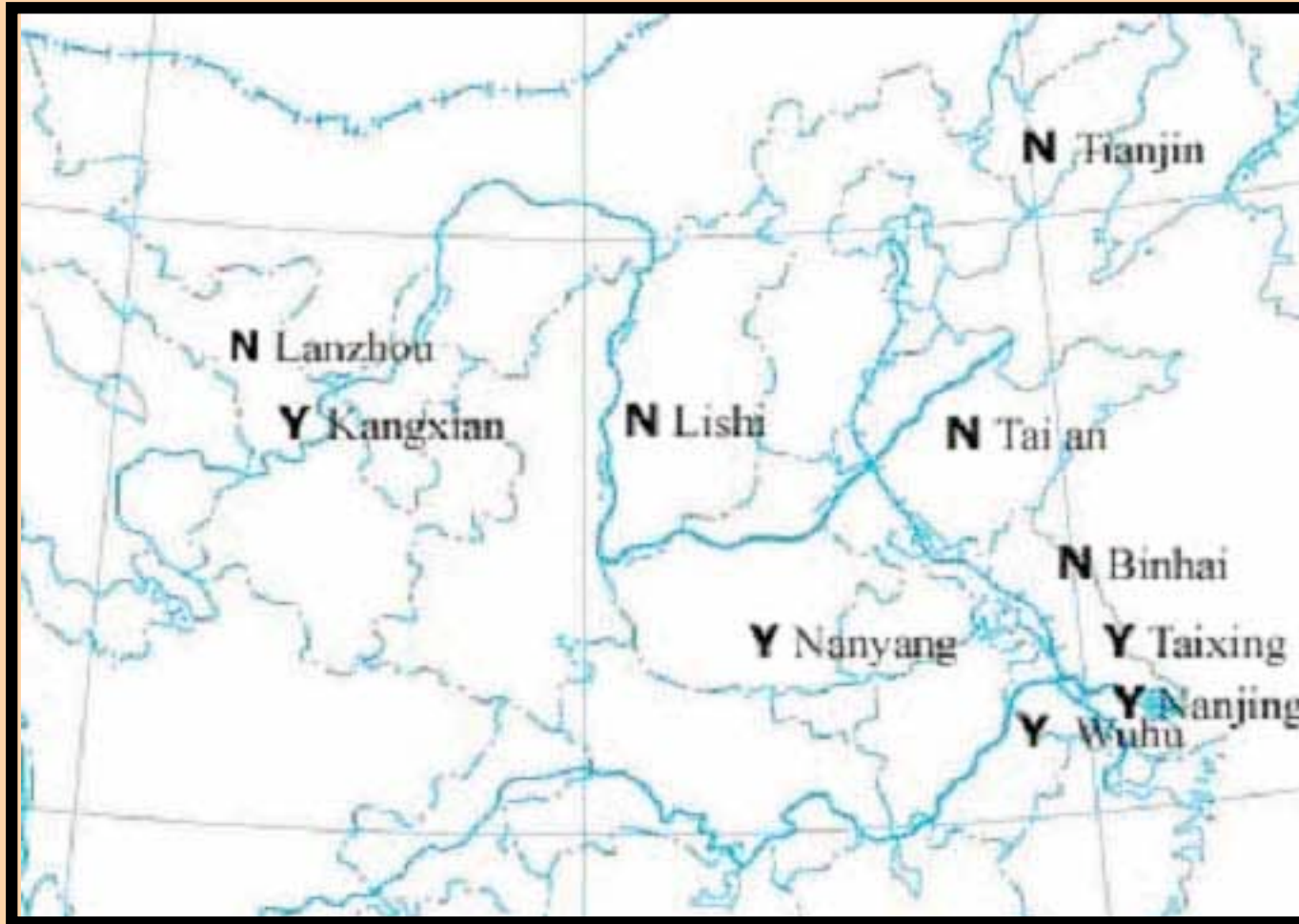
- **The basic duty for vetiver networkers is to organize, coordinate, and promote vetiver activities in a wide area.**
- **They should not only work hard themselves, but also unite others as much as possible and together to propel vetiver research, application, and extension.**
- **What they should consider is not their own profit or honor, but should work for the whole vetiver development cause.**

4. Key to further development

4.1 Regional gaps to be bridged

- 1. Vetiver development is not equal through out the country.**
- 2. In some provinces it has been developed quickly but in others slowly**
- 3. Even in one province it was developed also not equally.**
- 4. To bridge the gap more extension work should be done**
- 5. There were four major conferences organized in China**
 - Shaowu Conference (1989)**
 - Fuzhou Conference (1997)**
 - Nanchang Conference (1999)**
 - the Guangzhou Conference (ICV-3, 2003)**

However, all of these conferences were organized in east China, while the west China may have a greater market for vetiver development



Suitable planting area remains to be further studied

Y=yes, vetiver can grow; N=no, vetiver can not grow due to cold weather



Failure by low temperature

4.2 Need for transferring research achievements into practical applications

4.3 Vetiver for agricultural production: should be sustained

4.4 Problem with private sectors

Conclusion

China has made great success in the past 18 years. This is due to numerous Vetiver Workers' hard work, wide cooperation and solidification, and support from international friends, colleagues and donors. We should cooperate with more people to join us to promote vetiver development to a new stage.

A photograph of a terraced rice field on a hillside. The terraces are filled with green rice plants, and the background shows a dense forest of tall trees. The text "Thank you" is overlaid in the center in a white, serif font.

Thank you