

## Vetiver for Railway Protection: 14 Years Occurrence

With great effort, the Xinchang Railway Company located in Nanjing, the capital of Jiangsu Province, became the first railway to use vetiver technology for railway protection under the guidance and technical support by China Vetiver Network.

On 20 April 2001, 120,000 tillers of Vetiver planting material were transported from a village in the Dabie Mountains where farmers had been producing planting materials for contracted Vetiver projects since 1998 as part of a poverty alleviation program and an environmental protection scheme.

Later, The First Railway Vetiver Technology Identification and Evaluation Conference of China was held in Nanjing from 18-20 October 2001. On 20 October 2001, the manager of the Xinchang Vetiver Slope Stabilization Co. Ltd. introduced the background and the process used to establish the demonstrations. The successful application was fully approved by experts. In 2002 and 2003 the Vetiver System was applied to an increasing number of railways in Jiangsu and Fujian Provinces and other provinces.

In 2003 the national railway authority documents approved the use of vetiver grass for railway embankment protection, which official promoted the dissemination of vetiver technology countrywide. Therefore more farmers in different province were actively involved in railway (and highway) protection and got considerable profit.

The experiences showed that vetiver grass can protect railway embankment in just 2 or 3 months after planting and would stand at least 14 years. The cut of the leaves is beneficial to the maintenance of vetiver hedges. Meanwhile when vetiver grew up and the slopes were fixed the local plants would grow and some vetiver grasses were replaced by them gradually.



Railway embankment subject to serious erosion



Vetiver planting in April 2001



Three months later after planting



Railway was fully protected (7 years later after planting)



Vetiver was cut and dried on railway slopes



Dried grass was stored by local farmers



Vetiver mattress used by farmers



Vetiver mattress for selling



Some vetiver was replaced by local plants (14 years later)



Some vetiver still grow vigorsly (14 years later)