

VETIVER GRASS IN ENGINEERING WORKS IN BRAZIL

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Abstract

Until recently the use of Vetiver Grass in Brazil for hillside slopes stabilization, river bank protection, re-vegetation in eroded and degraded areas, associated with engineering works were carried out. This paper shows several cases study successful done in Brazil as well some nursery for slips production and application of the Vetiver System (VS) in many towns . VS applications have been well accepted in Brazil and displaying a growing demand for the grass, resulting in considerable increase the number of slips planted each year .This paper also shows a review of the literature concerning the use of Vetiver in the soils bioengineering, illustrating the plant effectiveness, when compared to others traditional plants used in the engineering works.

The use of vetiver grass is effective and low cost if compared with other techniques used in engineering in Brazil. The vetiver grass is a plant accepted and recognized by the environmental institutions from many countries and is recommended by the United Nations Organization, and the World Bank thus reaffirming the security and credibility in the vetiver grass usage.

The offices of Environment in Brazil have approved the vetiver grass thus can be used in all regions of the country. It is a plant that can be propagated by slips, not by seeds, stolons or shoots or rhizomes, therefore it does not disseminate naturally, making it a safe plant. In addition to many important characteristics, the vetiver grass presents a positive biotactism (bio ordering capacity), that it joins the next plant forming one barrier in line, thus forming live berms and creating transversal lines to the slope inclination and hillsides, improving water infiltration, less erosion and reducing run off water.

Keywords: Vetiver System; Erosion Control; Bioengineer; Brazil.