



Specific addressed issues of soil bioengineering implementation work - a practical approach

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Soil bioengineering is a biologically orientated technique for civil engineering constructions. It uses specific plants for the stabilisation and re-vegetation of shallow-seated instabilities and erosion on slopes or river banks. Plants are an important structural component of soil bioengineering systems and can be used either alone, or in conjunction with non-living material. Localised auxiliary materials such as stones or wooden logs fulfil technical functions especially during the initial period as long as the plants are undeveloped. Soil bioengineering systems provide technical, ecological and low cost engineering solutions. For a successful and sustainable performance of soil bioengineering systems the implementation work is of major importance.

The contribution highlights selected relevant factors of soil bioengineering projects and points out the connection between theory and practice. Preparation of the construction site, management and selection of plant material, and the implementation work itself will be addressed. Substantial construction issues are reflected and major errors and problems will be discussed and demonstrated by several case studies. Design errors, maladjusted techniques and improper implementations will be identified and shown.

By the means of construction details it can be demonstrated that an accurate preparation prevents dissatisfying results. Furthermore, trained and skilled workmen, ecological supervising of projects as well as periodical monitoring are essential for sustainable success of soil bioengineering implementation work.