



Construction of soil bioengineering and conventional methods used in road side slope stabilisation works in Nepal

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New clearing of marginal lands for food production on the steep slopes, deforestation for commercial timber production and large-scale construction of highways, railways, dams, and mining are the most important man-made reasons for soil erosion and slope failures, which are critical in developing mountainous countries like Nepal.

Since twenty years of the slope stabilisation works the technique of soil bioengineering has developed and now established as an alternative and additional engineering discipline beside the conventional geotechnical or civil engineering in Nepal. Living plants and auxiliary materials are used as construction material. From the point of view of sustainability, environmental impact, and socioeconomic aspects these “living” soil bioengineering systems provide a lot of advantages. Research work is required due to the still missing of technical standards. This project imparts the knowledge of using soil bioengineering systems for slope stabilisation work. On the basis of initial encouraging results from a previous research project in Nepal a field study will be conducted in this project. A vegetated bamboo crib wall will be compared with a conventional slope stabilisation method (gabion) by means of different parameters. The implemented construction work of both constructions and an outlook for the further research work will be presented.