

## **Using GIS applications in road network development taking into consideration soil erosion**

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### Abstract

In order to realise a quantification of soil erosion in a perimeter of 56.5 ha situated in the Tarlung basin one has observed and characterize more areas. Each plot has a distinct number which has been recorded with the aid of a GPS Garmin 60CSx.

Plots' description was mainly used to observe the type and the vegetation status. The role of plots' positioning is to observe the homogeneous areas in order to create a mapping of the whole area.

Rain erosion as a natural process takes place on all the bended grounds but it reaches brutal forms only in certain conditions (slope, aspect, vegetation coverage and tipe, bedrock. Therefore, each territory has a certain degree of erosion. In order to characterize a territory through the erosion process one can use the Ciortuz method, which is a system based on indexes frequently used in science (geography) and in technology (silvotechnique). The working system refers to the following factors: the rock type from the bedrock, the territory's morphological slope, the rain factor, the soil texture and the vegetative factor.

Keywords: road network development , soil erosion, GIS