DEVELOPMENT OF LANDS ON THE SLOPE THROUGH TERRACING FOR RECREATION AREAS

Oprea RADU¹, Cristian HUŢANU¹

e-mail: roprea@uaiasi.ro

Abstract

The terracing of sloping land provides multiple functional and aesthetic advantages. Landscaping on a slope is a complex work that requires a thorough analysis of the features of the relief, soil and vegetation. The adoption of an optimal terracing solution, in terms of dimensions, contributes to the quality of the result obtained, its maintenance over time and a minimal impact on the environment. In this work, for the dimensioning of the terraces and the optimal use of the natural elements, the topographic survey of the surface was carried out with the GPS. When determining the width of the leisure terraces, the slope of the land and microrelief were taken into account. To make the embankments more efficient, it was proposed to equalize the volume of excavation with that of filling. The achievement of this objective was achieved by covering the surface to be leveled with a network of squares, with a side of 17 m, the corners of the squares being materialized on the ground with wooden stakes. The absolute shares of all the points of the squares were determined, and depending on the weight of each point, the weighted average share of the two networks of squares was calculated. The calculation resulted in a value of the weighted average elevation on the first terrace, from the upstream side, of 148.789 m, and on the second terrace of 146.599 m. The values thus obtained were imposed quotas for the execution of the terrace platforms. Depending on the micro-relief of the land on the surface proposed for development and the neighboring areas, widths of the terraces of 15 and 17 m, with a length of 88 m, have resulted, which allow their use for the purpose proposed for development.

Key words: land terracing, soil erosion, land elevation