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Recovery of an Area Degraded by Gullies in the Municipality of Monte Alto (SP), Brazil

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Abstract : Anthropogenic occupations and agricultural explorations without concern for the preservation and sustainability of the activity result in soil degradation that can make rural activity unfeasible. The objective of this work was to characterize and evaluate the recovery costs of an area degraded by major erosion (gully) in the municipality of Monte Alto (SP). Topographic characterization was carried out by means of a planialtimetric survey with a total station. The contours of the gully, internal area, slope height, contribution area, volume, and costs of operations for the recovery of the gully were delimited. The results obtained showed that the gully has a length of 145.56 m, a maximum width of 36.61 m, and a gap of 19.48 m. The external area of the gully is 1,039.8741 m², and the internal area is 119.3470 m². The calculated volume was 3,282.63 m³. The intervention area for breaking slopes was measured at 8,471.29 m², requiring the construction of 19 terraces in this area, vertically spaced at 2.8 m. The estimated costs for mechanical recovery of the gully were R$ 19,167.84 (US$ 3.657,98).

Keywords : erosion, volumetric assessment, soil degradation, terraces
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