



**INTERNATIONAL CONFERENCE
1ST YOUNG RESEARCHERS' CONFERENCE - EROSION AND
TORRENT CONTROL (ETC 2018)
ABSTRACT BOOK**



Belgrade, November 28 – 30, 2018.

Editor in chief: Katarina Lazarević

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ENVIRONMENTAL AND ECONOMIC EFFECTS OF INVESTMENTS IN SUSTAINABLE LAND MANAGEMENT IN THE MORPHOLOGICAL UNIT OF ŠUTILOVAC STREAM

Vukašin Rončević^{1*}, Miodrag Zlatić¹, Mirjana Todosijević¹, Nada Dragović¹

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ABSTRACT: In this paper are represented results of erosion processes research on the territory of morphological unit Šutilovac stream, prevention measures of same processes, as well as justification of socio-economic investments and sensitivity analysis of the economic efficiency parameters. The research includes period from 2017-2032 year, whereby are in erosion process intensity evaluation applied methods of professor Gavrilović, on the whole research area, and universal soil loss equation – USLE, on the agricultural land area. By application of these methods are established different rates of soil erosion vulnerability on the whole research area. By predicted model of future production from the aspect of soil resource protection on the area of the city of Belgrade, by professor Zlatić (1994), are prevented present erosion processes and erosion soil losses are significantly diminished and reduced under tolerant limit, along accomplishment of socio-economic justification of investment, examined by dynamic methods of internal rate of yield, term for repayment of invested funds, cost-benefit ratio, and net present value. Also, is executed analysis of internal rate of yield sensitivity and term for repayment of invested funds, which showed a low sensitivity, which indicates a great economic efficiency.

Key words: morphological unit Šutilovac stream, erosion process intensity, soil erosion method of professor Gavrilović, USLE, model of future production, dynamic methods, analysis of sensitivity.

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