ADAPTATION STRATEGIES FOR SOIL AND WATER CONSERVATION IN A CHANGING WORLD

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Bořivoj Šarapatka, Marek Bednář and Patrik Netopil
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Ecological and economic effects of applying the Future Agricultural Production Structure Model (FAPSMS): The case of Barička river basin

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It is necessary to harmonize the needs of society in terms of agricultural production and land protection from various forms of degradation. Assessing the justification of investment in sustainable management of land resources is an important step in that process. Consequently, in the suburban area of the morphological unit of the Barička river basin, an analysis of soil erosion risk was carried out using the Revised Universal Soil Loss Equation (RUSLE) method, with the existing and projected structure of agricultural production according to the Future Agricultural Production Structure Model from the Aspect of Preserving Land Resources for Mountain Catchment Areas of Serbia (FAPSMS). The value of the existing and projected production structure from the economic aspect was also examined, using dynamic economic methods. In order to assess the risk and uncertainty of investments, a sensitive analysis of dynamic methods was carried out. The results of the research showed that soil erosion losses are already below tolerance values with the existing production structure and that they could be reduced even more by applying the designed structure. Economic indicators have shown that the investment is justified and that it is more sensitive to changes in income.