

Submitted Abstract

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Abstract

A global issue of the modern world, erosion is one of the main causes of two-component streams (carrying water and soil) that cause torrential floods in the mountainous regions of the Republic of Serbia. Such natural disaster is intensified by global climate changes reflected in the change of air temperature and the distribution of precipitation. Climate and natural characteristics of highland regions are locally constant categories. The introduction of planning measures, i.e. the change in the use of space, has the greatest effect on preventing or mitigating disasters caused by torrential floods, resulting in the minimisation of soil erosion and surface outflow. In addition to the impact of natural disasters, spatial distribution of infrastructure and human activities greatly affect the security of people and the protection of property. Soil erosion, as one of the means of land resources degradation, causes the loss of topsoil and the reduction of infiltration characteristics, which consequently lead to surface outflow. Natural disaster caused by torrential floods increases the risks for population and infrastructure security. The level of topsoil degradation and the accumulation of deposits depend on the means of exploitation. Urbanisation, infrastructure development, construction of ski centres and other facilities, greatly affect land exploitation characteristics, reflecting in the destruction of forests, improper agricultural production, unplanned development of ski pistes and infrastructure. In order to develop tourist, residential, and infrastructure facilities in Serbian mountains, the great pressure is directed on repurposing forest and agricultural land into building land. The purpose and the means of land use in the Republic of Serbia is directed by planning and other strategic and legal documents. By applying anti-erosion measures, increasing the quality of forests, afforestation, preservation of the existing well-structured forests, a proper choice of culture on steep terrain, contour farming, and other biological and technical measures, land erosion can be significantly reduced. Implementation of plans is fundamental for environment preservation, population and infrastructure safety, resulting in the prevention or minimisation of natural disasters consequences.