

Erosion process prediction in Kvemo Kartli's river basin

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since ancient times, agriculture played one of the largest part among activities of people living in Kvemo Kartli . The region greatly benefited from optimal natural circumstances in terms of agriculture production throughout all of history. The oldest types of vine has been found and the archeological researches discovered the evidence of prehistoric humanoid, which lived in the region 2 milion years go.

The usage of Kvemo Kartli's land in terms of different cultural vegetation technologies with accordance to nature develops the necessary conditions for erosion process, which results in yield reduction based on erosion intensity: weak erosion reduces yield by 10%, intermediate by 30-50% and strong erosion by 70% and more.

Kvemo Kartli region stands out by various landscape as well as different types geological, climat, terrain and soil-vegetation layers.

In the scope of our research, the risk of erosion will be evaluated based on causes (precipitation, soil sustainability, terrain, technologies of rural vegetation care and harvest).

Final, integral risk is determined by area of separate natural vegetation (forests), natural-agricultural pastures and rural-agricultural land use based on anticipated erosion in respect to soil loss. To minimize the adverse effect on rural-agricultural land use, antierosion events will be determined.

For asseson and prediction of erosion effect on Kvemo Kartli MUSLE method will be used, which is part of one of the universal equation (USLE) used for erosion anticipation.