

## **Evaluation of Siltation of rivers with intensive economic development of watersheds**

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### **Abstract**

© Medwell Journals, 2016. In regions with a high degree of agricultural development with an active development of erosion processes and the critical level of degradation of the river network to which the Middle-Russian Upland belongs, the evaluation of sedimentation for various combinations of natural and economic conditions becomes an immediate problem. The evaluation of the silting-up of rivers, the catchment areas of which are undergoing an intensive economic development has been done at the regional and sub-continental level which allowed the adaptation of the GIS-analysis techniques for different scale levels. A possibility of assessing the risk of silting-up of rivers by calculating the sediment transport using hydraulic formulas and then comparing the sediment transporting capacity and sediment-production rate has been shown.

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### **Keywords**

Erosion, Fluvial system, Sediment load, Sediment transporting capacity, Watershed fluvial morphology