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Suspended sediment yield mapping of Northern Eurasia

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Abstract

Copyright © 2014 IAHS Press. The mapping of river sediment yields at continental or global scale involves a number of technical difficulties that have largely been ignored. The maps need to show the large zonal peculiarities of river sediment yields, as well as the level (smoothed) local anomalies. This study was carried out to create a map of river sediment yields for Northern Eurasia (within the boundaries of the former Soviet Union, 22 × 106 km²) at a scale of 1:1 500 000. The data for preparing the map were taken from the long-term observations recorded at more than 1000 hydrological stations. The data have mostly been collected during the 20th century by applying a single method. The creation of this map from the study of river sediment yield is a major step towards enhancing international research on understanding the mechanical denudation of land due mainly to erosion.

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Keywords

GIS, Northern Eurasia, suspended sediment yield, thematic map, watershed boundaries