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## Can we trust our data sources? A case study presenting limits of spatial detail of sediment transport modelling

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The paper discusses the limits of data sources that are widely available, used and applicable for soil erosion and sediment transport modelling. It emphasizes the accuracy and spatial detail of land use and stream topology data. These two inputs are critical in terms of sediment transport dynamics. The aim of the paper is to point out the error propagation into results at the small catchment scale if the data is used inappropriately. In contrast, we show how the quality and accuracy can be significantly improved by checking, verifying and modifying the directly available data sources to make them applicable at the scale of smaller catchment (tens of km<sup>2</sup>). The accuracy that can be achieved by directly measuring and describing the real situation in the field (land use, streams, crops) is discussed.

WaTEM/SEDEM (based on RUSLE and sediment transport capacity assessment) was selected as a modelling approach. The results will be interpreted using a case-study of the Oostanaula watershed, Tennessee, USA, approximately 10km<sup>2</sup>. Modelling utilized the most recent available DEM, land use and soil data in raster resolution 10x10 m.

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