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Study on Soil Erosion of Fengtai District Based on CSLE Model and Three Factors Method

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Serious water and soil erosion is the important influence factor of environmental degradation.Field survey, soil erosion model and remote sensing information are basic techniques on how to calculation of soil erosion intensity. In this study, Fengtai District of Beijing located in rocky mountain areas in north China was selected as the study region. Based on remote sensing data analysis and field investigation, regional soil erosion quantity in a 2m pixel scale was calculated with the CSLE(Chinese Soil Loss Equation) model and Three Factors method. It showed that the erosion area was 22.05km2, it reduced by 12.2 percent in 2017 compared with those in 2012. The results produced by the CSLE model are better than results generated by the three factors method, becaused the latest ground survey showed that the soil erosion area in this region has an evident decreasing trend which comparing with the water resources survey in 2012, and the CSLE model accords with the trend very well. The suitable soil erosion model applied to monitor and analyze regional soil and water loss in favour of the water and soil erosion management.