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Evaluation on the coefficient and exponent of runoff energy in MUSLE in forest watersed of Korea

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MUSLE is one of evaluation method of erosion and has been widely applied various areas. However, the coefficient and exponent of runoff energy in MUSLE was developed from US areas, especially Nebraska and Texas areas. Thus, when these values are applied in Korean forest watershed they should be modified due to the difference conditions such as topography, forest type and slope.

This study was carried out to examine the coefficient and exponent of runoff energy in MUSLE for small forest watershed in Korea. Peak discharge, runoff volume and sediment yield were measured in forest watershed and the coefficient and exponent of runoff energy were calculated to 0.002 and 0.81 respectively. These values were based on undisturbed forest watershed and could be larger in disturbed forest including forest management or forest fires.