

Analysis of Erosion Risk in a Catchment using Projected Rainfall Data and Spatial Rainfall–Erosion Model

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Abstract

Erosion in a watershed is one of the main sources of sediment inflow in dams. While sediment management practices can be performed to reduce and manage sedimentation in reservoirs, managing the sediment inflow before it reaches the reservoir should also be considered. The accurate location of areas with high erosion and deposition rates should be determined in order to propose an appropriate sediment management procedure such as the construction of check dams. In this study, the projected rainfall from HadGEMRA-3 for RCP 8.5, was used in C-SEM, a distributed rainfall-erosion model, to determine the projected spatial erosion patterns in Cheoncheon catchment, which is located in the upstream part of Yongdam Dam.

Keywords : climate change, C-SEM, reservoir sedimentation, spatial erosion

Acknowledgment

This research was supported by the National Research Foundation of Korea (2018K1A3A1A05087901)

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