

IMPACT OF CLIMATE CHANGE ON STREAM DISCHARGE AND SEDIMENT YIELD IN NORTHERN VIET NAM

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TÓM TẮT:

The purpose of this paper is to apply "Soil and Water Assessment Tool (SWAT)" model to assess the impacts of climate change on stream discharge and sediment yield from Song Cau watershed in Northern Viet Nam. Three climate change scenarios B1, B2, and A2; representing low, medium, and high levels of greenhouse gas emission, respectively, were considered in this study. The highest changes in stream discharge (up to 11.4%) and sediment load (15.3%) can be expected in wet season in 2050s according to the high emission scenario (A2), while for the low emission scenario the corresponding changes equal to 8.8% and 12.6%. The results show that the stream discharge is likely to increase in the future during the wet season with increasing threats of sedimentation.