

# **Study on the control function of a series of check dam against debris-flow**

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Present study discusses a criterion of control function for close type check dam with attention focused on potential storage volume of the check dam, supplying and out-flowing sediment volumes, supposing that the debris flow can be controlled due to the change of stored sediment volume although the storage area is initially filled up of sediment up to the dam's crest level. If debris flow takes place and continues to flow, the dam will lose its control function gradually. However, it is expected that the dam can control debris flow and change its characteristics when bed slope of storage area is less than the corresponding equilibrium bed slope. It is hoped that the results are helpful to analyze the control function of close type check dams against debris flow and therefore to plan and design check dam systems.