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Experimental Study on the Evolution of the Dam-break

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In the recent years, the rapid climate change due to global warming caused much serious and more heavy rainfall events than before in Taiwan. Sometimes, the extreme flood may cause the failure of hydraulic constructions. For example, Baling Sabo-Dam in Shihmen Reservoir watershed was broken due to the typhoon flood during typhoon Wipha in 2007. Tremendous sediment storage by the sabo-dam was free to flush downstream and the riverbed was varied significantly. This paper discussed the phenomenon of sabo-dam break through a serious of dam break experiments. The bed materiel of sand was released in a dedicated flume equipped with a fallen gate and no bed materiel was deposited downstream of the gate. Several characteristic behavior were also discussed by changing the flow discharge and channel slope. However, a pivot point of the sand bed was observed which was different from the dam-break wave cases of 4/9. the location of pivot point , the headward erosion and the depostion downstream were also discussed.