

Reservoir Management of Banglang Dam for Flood Mitigation: The Case Study of Flood Situation in Pattani River Basin, 2014

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Abstract

The best practice of reservoir management will increase the benefit of using the dam and reduce the risk. Banglang dam is the multi-purpose reservoir, flood mitigation purpose is the main objective of this dam. This paper takes a look at flood situation that was occurred in Pattani River Basin in December 2014 to January 2015. The rainstorm drop a massive precipitation over southern part of Thailand which is flooding the downstream area of Banglang dam. There are a lot of population in Yala and Pattani province were in flooded area. The reservoir management of Banglang dam can alleviate flooding. Meanwhile, the inflow of the dam was rapidly increasing and tend to be full of reservoir capacity. Therefore, the spillway release is necessary for dam safety. This paper describe the alternatives of reservoir operation which must be considered several of factors such as flood forecasting, reservoir flood routing, flooded area in downstream and dam safety. However, this paper recommends the best alternative of non-structural strategy of flood management for this situation.

Keyword: Banglang Dam, Flood, Mitigation, Reservoir