Thesis Title	Reservoir System Operation in Khao Hin-son Demonstration Center Project under His Majesty the King's Advice
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Abstract

All development activities require resourses. To utilize resources, their characteristics, quality and quantity must be clearly known. Moreover, knowing their trend or potential stock will help possiblle resource utilization, planning and preventing problems efficiently. Water resource is the basic resource.

The objectives of this study are to understand reservoirs system and develop mathematical models representing the reservoir dynnamics to be used for prediction of future water quantity in the reservoirs.

Mathematical models were constructed and coefficients of the mathematical models were estimated. Simulation was performed using real data. Water volumes in reservoirs were estimated by using data on reservoirs' physical characteristics, rainfall, evapotranspiration and the period of opening pipe's valve of 6 reservoirs (2, 5, 6, 8, 12 and 14) from 10 reservoirs (2, 5, 6, 8, 10.1, 10.2, 12, 13, 14 and 16). The results incated that differences of estimated figures and real data of 1992 were not significant except those of reservoir number 12.

The mathemetical models can provide better results if there are more reliablle data to adjust all coefficients. Moreover, the project manager can use these mathematical models in simulating water volume to help manage water allocation problems which may arise in the near future.