



Operation of Dautieng reservoir for adaption on climate change - a case study in Vietnam

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The potential impacts of climate change on reservoir operation are investigated in this study for case Dautieng reservoir in Vietnam. A framework is built as an effective methodology to integrate available data on climate change scenarios, the watershed of the reservoir as hydrologic system and reservoir management. This framework includes: (1) generating future climate data by weather generator model for regional downscaling of Global Climate Model (GCM) results from IPCC's scenarios (IPCC: Intergovernmental Panel on Climate Change), (2) modelling watershed-based hydrologic and reservoir operation on basis of stream flow generation under different climatic scenarios as well as existing reservoir operation rules, (3) investigating various alternative reservoir operating rules to meet future climatic conditions and optimizing the operation-scenarios. The results indicate that the effects of different climate change scenarios on reservoir management will be probably significant and require adaptive operating rules for the future.