

RESEARCH ON THE OPERATION OF O TA SOC RESERVOIR, BAY NUI REGION, AN GIANG PROVINCE UNDER CLIMATE CHANGE SCENARIO PERSPECTIVES

Le Hai Tri, Le Anh Tuan,

Huynh Vuong Thu Minh, Tran Van Ty

Summary

The objective of this study is to assess water balance of O Ta Soc reservoir for different water usages in Bay Nui region, An Giang province; and then, to propose reservoir operation for current status and in the future. To achieve this, firstly different water users' demands and reservoir water resources were estimated; and then reservoir operation for different water usage alternatives under climate change scenarios perspectives were calculated and evaluated. The results show that, under climate change scenarios, rainfall tends to decrease in the dry months and increase in the rainy months. In general, the temperature increases in both rainy and dry seasons under climate change scenarios. Results of reservoir operations show that current reservoir capacity would ensure full water supply for current domestic and agricultural production usage. Under climate change scenarios, the operations of the reservoir for above water demands would be ensured up to the period 2030s. However, in the period 2050s, the results of water balance under each reservoir operation alternative will change according to the climate change scenarios (surplus or deficit). The research results are the basis for the initial study of the operations of the reservoirs in Bay Nui region.

Keywords: *Climate change, water demand, water balance, reservoir, scenarios.*