

Thumapong Naowvabutra 2009: Analysis of Water Accounting in Sakakrange Basin
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Santi Tongpumnuk, M.Eng. 166 pages.

Sakakrange basin locates in the central part of Thailand and is also one of subbasins of Chao Phraya basin. It covers an area of 4,906 km² (reviewed by Department of Water Resource) and of 4 provinces; Uthaithani, Nakornsawan, Chainat and Kampaenphet. There is only one reservoir called Thapsalao reservoir with full capacity of 190 mcm. Large, medium and small scale irrigation systems cover total area of 604,908 rais.

Water accounting method was selected in analysing for water resource management and planning. It found that for the present situation, the basin had total inflow 5,894.34 mcm which was separated as infiltration to aquifers of 348.55 mcm, process depletion of 2,026.06 mcm, non-process depletion beneficial of 1,561.89 mcm, non-process depletion non-beneficial of 836.56 mcm, uncommitted outflow of 1,063.72 mcm and committed outflow of 57.56 mcm.

The future construction Mae Wong dam had total inflow of 5,894.34 mcm infiltration to aquifers of 348.55 mcm, process depletion of 2,170.44 mcm, non-process depletion beneficial of 1,561.89 mcm, non-process depletion non-beneficial of 763.45 mcm, uncommitted outflow of 993.49 mcm and committed outflow of 56.52 mcm.

Considering the result of water accounting analysis, the situation is in transition state from water resource development to water allocation. Therefore, water use efficiency should put into basin policy and the irrigation systems should be properly improved. Conservation of forest area begins to be important. Ground water conjunctive with surface water should be developed.

Student's signature

Thesis Advisor's signature