Water balance after 10 years watershed rehabilitation at Sakaerat Environmental Research Station, King Amphoe Wang Nam Khiew, Changwat Nakhonratchasima.

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ABSTRACT

This research was carried out during May 1992 through April 1993 on four subwatershed named Wanasart (natural dry evergreen forest), Huay Namkam (almost forest plantation with some natural dry evergreen forest), Huay Kokped (natural dry dipterocarp forest) and Huay Tayoo (natural succession with some forest plantation). The results show that amount of annual rainfall after rehabilitation on Huay Wanasart, Huay Namkam, Huay Kokped and HuayTayoo were about 1,302.6, 1,344.6, 1,263.9 and 1,344.6 mm. respectively, annual streamflow were about 23.1, 108.8, 0.7 and 279.8 mm. (1.77, 8.09, 0.06 and 20.81 % of rainfall) respectively, annual evapotranspiration were about 768.9, 768.9, 907.5 and 489.8 mm. (61.62, 51.18, 71.8 and 36.43 % of rainfall) respectively. The result of this research show that after forest rehabilitation caused remarkedly an increase soil moisture storage and decrease streamfolw due to nonuniform rainfall period eventhoung it showed higher amount of rainfall in dry period than the previous recored.