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ESTIMATING GROUNDWATER RECHARGE IN THE DRY ZONE OF SRI LANKA USING WEEKLY, 10-DAILY OR MONTHLY EVAPOTRANSPIRATION DATA

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ABSTRACT
Howard and Lloyd (1979) have shown that daily values for rainfall and potential evapotranspiration are required in estimating recharge with a soil water balance model. However, available data may not be daily but weekly or even monthly. This is true for potential evapotranspiration data which are usually derived from pan evaporation data. This paper examines the effect of using distributed weekly, 10-daily or monthly potential evapotranspiration values rather than the actual daily values in estimating recharge with a soil water balance model. The results clearly show that in the dry zone of Sri Lanka, the evenly distributed weekly, 10-daily or even monthly potential evapotranspiration data can be used in a soil water balance model to obtain realistic groundwater recharge estimates, instead of actual daily potential evapotranspiration data.

Reference: de Silva, R.P.; Estimating Groundwater Recharge in the Dry Zone of Sri Lanka Using Weekly, 10-Daily or Monthly Evapotranspiration Data, Journal of Environmental Hydrology, Vol. 7, Paper 4, March 1999.

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