

# Climatic Water Balance of Annapurna, Langtang and Khumbu regions of Nepal Himalaya

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## ABSTRACT

*For the protection of the environment, climatic water balance studies play key role. This study attempts to assess the potential water availability at the Annapurna, Langtang and Khumbu regions of Nepal Himalaya. Potential evapotranspiration (PET) is calculated by CROPWAT 8 with the help of maximum and minimum temperature, relative humidity, wind speed and sunshine hour. The climatic water balance of water bodies is calculated on the basis of Thornthwait procedure. These calculations help to examine annual water surplus (WS) and water deficit (WD) periods. Potential water surplus at three selected station is calculated by above techniques after averaging the data of time period from 1987 to 2008. The main aim of this study is to compare the obtained result from the climatic water balance for the selected sites of the Nepal Himalaya region. This study will provide climatic water balance information of the given area which will be useful for sustainable management of water resources in local and small area of the Nepal Himalaya.*

**Key words:** Potential Evapotranspiration, Annual Water Surples, Annapurna, Langtang