

# **WATER BALANCE OF NEPAL AND CLIMATIC CLASSIFICATION BASED ON MOISTURE REGIMES**

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## **ABSTRACT**

An attempt has been made to prepare the climatic map of Nepal based on moisture regime as defined by Thornthwaite. All together 97 meteorological stations throughout Nepal are selected for analyses. In order to calculate water balance, Modified Penman method is used to estimate potential evapotranspiration. Due to the limitation of available meteorological parameter necessary for the computation, multiple regression formulae based on elevation, latitude and longitude is used. This paper also describes in detail the computation of potential evapotranspiration. Water balance of all the stations are calculated to obtain moisture index and other parameters viz. Actual Evapotranspiration, Water Deficit, Water Surplus and their corresponding maps are prepared and its parameters discussed. Finally climatic map based on the moisture regime is presented.

**KEYWORDS:** Evapotranspiration, Water balance, Moisture Index