



WATER BALANCE AND CLIMATIC CLASSIFICATION OF THE SWARNAMUKHI RIVER BASIN, INDIA

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ABSTRACT

The water balance elements worked out by using Thornthwaits and Mather(1955) show that hardly a few of the stations in the study area has water surplus even on a monthly basis. Contributions to the ground water reservoir from this region are thus normally absent. In certain years, however, when the precipitation during the rainy season is much greater than the normal, local water supplies occur for brief periods only, and these surpluses not only produce enormous surface flow resulting in the inundation but also significantly contribute to the ground water resources. Overall, 60-70 percent of the area in the district suffers from severe water deficit (which ultimately leads to drought) in the bordering taluks. Therefore, this mandal has been rightly identified as 'draught prone area' by the Irrigation Commission (1972).

Key words: *Precipitation, Potential evapotranspiration, Hydrological Drought*