

AN ANALYSIS OF MORPHOMETRIC CHARACTERISTICS OF PERUVAMBA RIVER BASIN, KANNUR DISTRICT, KERALA

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ABSTRACT

A watershed provides valuable characteristics related to river morphology, which includes linear, aerial and relief aspects of the drainage basin. The aim of the present study is to delineate and map the subwatershed of Peruvamba river basin and to carry out a morphometric analysis with the help of Geographic Information System (GIS). The Peruvamba river basin extends from 12° 0' to 12° 15' north latitudes and 75° 10' to 75° 20' east longitudes. A river originates from the Western Ghats near Pekunnu at an altitude of 356 m above MSL and has a length of 51Km. The basin has a total area of 298.15 sq.km covering 19 villages spread over 12 panchayats and 1 municipality, 3 blocks in Kannur and Kasaragod districts of Kerala State. In the present study base map, showing drainage details have been prepared from the SOI toposheets and further mathematical calculation and derived parameters were made using Micro Soft Excel Software.

KEYWORDS: *Morphometry, Watershed, GIS, Cartosat DEM, Peruvamba River Basin*