

Rainfall-Runoff Data and Modelling in the Likha Khola Catchment, Nepal

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Abstract

Hydrological and meteorological data collected from seven sites in the Likha Khola in Nepal's Middle Himalayas have been examined on three time scales: seasonally, monthly, and daily. At longer durations, the data show the typical pattern of a monsoon climate with over 90 per cent of the annual fall occurring in the monsoon season. There is a strong correlation between rainfall with altitude and rainfall is usually higher at higher altitudes. The gauges show that rain can vary greatly between sites. The gauges show the size diurnal patterns, with rainfall most likely to occur in the early hours of the morning and less likely to occur in the afternoon. Flow data from three catchments with different characteristics are compared with the rainfall data, they have been used to calibrate a simple lumped rainfall-runoff model using only data on rainfall and streamflow. Insights into the processes occurring within the catchment and into the effectiveness of the

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Introduction