

Presented in this paper is a study clarifying any distinctions or similarities in trends of extreme value statistics of rainfall and discharges recorded at stations sampled all over a basin traversing three distinct climatic zones in Kenya. It is found that in Athi basin, difference in seasonal rainfall pattern affect general characteristics of intense rainfall more significantly than spatial variation of mean annual rainfall. Survey of flood potential of the basin revealed zones which are considered hydrologically homogeneous and heterogeneous cases.