



A view from the watershed revisited: hydrological prediction in a non-stationary world

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The paper discusses evidence suggesting that common assumptions in the analysis of hydrological time series (homogeneous variability in random fluctuations about a constant mean value) may not be appropriate for some South American drainage basins. Relatively rapid changes have occurred, and are occurring, as a consequence of replacing mature forest by short crops and urban development. Some research claims to have detected non-linear trends in streamflow in rivers draining the south-eastern part of the sub-continent, together with decadal fluctuations and interannual peaks at ENSO timescales. The paper discusses the implications of such changes for hydrological practices now in widespread and largely unquestioned use.