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# Trend of Evapotranspiration over the Yangtze River Basin in 1961-2000

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## 摘要

关键词 [pan evaporation](#) [reference evapotranspiration](#) [actual evapotranspiration](#) [spatial and temporal distribution](#) [Yangtze River basin](#)

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# Trend of Evapotranspiration over the Yangtze River Basin in 1961-2000

**Abstract** Based on observed data from 115 meteorological stations in the Yangtze River basin from 1961 to 2000, pan (20cm diameter) evaporation (EP), reference evapotranspiration (Er) and actual evapotranspiration (Ea) as well as their trends are calculated and analyzed. Results indicate that significant negative trends of EP, Er and Ea are detected in the upper, middle, and lower as well as the whole Yangtze River basin, especially in summer. No significant trends in spring for EP, Er and Ea are observed. EP and Er in winter show significant negative trends, while Ea in winter shows a significant positive trend. The spatial distribution of this kind of negative trends is more significant over the middle and lower Yangtze River reaches than that in the upper Yangtze River reaches. However, in the same periods the observed air temperature in the Yangtze River basin shows a significantly increasing trend, which would increase evapotranspiration. A recent investigation shows that the significant decrease in net radiation and wind speed over the basin may in turn cause the decrease in evapotranspiration after compensating the increase in air temperature.

**Key words** [pan evaporation](#) [reference evapotranspiration](#) [actual evapotranspiration](#) [spatial and temporal distribution](#) [Yangtze River basin](#)

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