



Variation of Characteristics of Single Rainfall Events in the Middle Reaches of Yellow River Basin, from 1978 to 1997

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Abstract: Rainfall is a key component of the water cycle. Change of its characteristics, such as intensity and amount, can impact surface runoff, evaporation and underground flow. The global water cycle, including rainfall and the other parts, has been influenced by global climate change. Based on data collection, variation of Characteristics of Single Rainfall Events in the middle reaches of Yellow River in China from 1978 to 1997 was analyzed using trend analysis methods such as linear regression and Men-Kendal method. The results showed that the frequency of single rainfall events with low intensity and rainfall amount rose as a notable trend in these areas. This phenomenon could direct a decrease of surface and underground flow and a increase of evaporation, but it was good news to environment protecting. The Ridge of the Western Pacific subtropical high showed a significant movement to south during this period, and this was the major reason of the variation of characteristics of single rainfall events.

Key word: Characteristics of Single Rainfall Events, trend analysis, Western Pacific subtropical high, the Yellow River Basin.